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## To Our Children's Children's Children: The Problems of Intergenerational Ethics

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# TO OUR CHILDREN'S CHILDREN'S CHILDREN: THE PROBLEMS OF INTERGENERATIONAL ETHICS

*Lawrence B. Solum\**

## I. INTRODUCTION

This essay serves as the introduction to the Loyola of Los Angeles Law Review's symposium on intergenerational justice. The importance of this topic cannot be overstated. Intergenerational ethics bears on questions of environmental policy,<sup>1</sup> health policy,<sup>2</sup> intellectual property law,<sup>3</sup> international development policy,<sup>4</sup> social security policy,<sup>5</sup> telecommunications policy,<sup>6</sup> and a variety of other issues.

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1. See generally Dan M. Berkovitz, *Pariahs and Prophets: Nuclear Energy, Global Warming, and Intergenerational Justice*, 17 COLUM. J. ENVTL. L. 245 (1992) (examining nuclear energy and its risks as an alternative to fossil fuels).

2. See generally Alan Williams, *Intergenerational Equity: An Exploration of the "Fair Innings" Argument*, 6 HEALTH ECON. 117 (1997) (exploring "fair innings," a concept that assumes everyone deserves a "normal" health span).

3. See generally Angela R. Riley, *Recovering Collectivity: Group Rights to Intellectual Property in Indigenous Communities*, 18 CARDOZO ARTS & ENT. L.J. 175 (2000) (discussing copyright protection for "inter-generational tribal creations").

4. See generally Charmian Barton, *Aiming at the Target: Achieving the Objects of Sustainable Development in Agency Decision-Making*, 13 GEO. INT'L ENVTL. L. REV. 837 (2001) (assessing sustainable development in light of intergenerational equity).

5. See generally Denis Kessler, *But Why Is There Social Security?*, in WORKERS VERSUS PENSIONERS: INTERGENERATIONAL JUSTICE IN AN AGEING WORLD 80, 87 (Paul Johnson et al. eds., 1989) [hereinafter WORKERS VERSUS PENSIONERS] (examining the role of social security in the labor market in the context of intergenerational justice).

6. See generally Jim Chen, *Standing in the Shadows of Giants: The Role of Intergenerational Equity in Telecommunications Reform*, 71 U. COLO. L.

Part II. Clarifying the Problems of Intergenerational Ethics, is a first sketch of the scope and nature of intergenerational justice, introducing a variety of cases and contexts in which issues of intergenerational ethics arise and distinguishing between the political and moral dimensions of these issues. Part III. Theories of Distributive Justice, examines three approaches to intergenerational distributive justice: an egalitarian approach, a libertarian approach, and a utilitarian approach. Part IV. Methods of Justification, examines three strategies for justifying a theory of intergenerational justice: a social contract, the original position, and reflective equilibrium. Part V. A Word About the Relationship of Ethical and Moral Theory to Political Morality and Distributive Justice, marks a transition from questions of political philosophy to the more general realm of ethical and moral theory, examining utilitarianism as a comprehensive moral doctrine as well as deontological moral theory and contrasting these moral theories with a virtue-centered approach. Part VI. Some Conundrums of Intergenerational Ethics, examines three very general problems that a theory of intergenerational ethics must face: the problem of uncertainty, the problem of discount rates, and the problem of possible persons. Part VII. The Symposium, introduces the three contributions to the symposium, briefly situating each in relation to the general framework introduced in the previous parts. Finally, Part VIII. Toward a New Discourse of Intergenerational Ethics, draws some lessons for further work on the difficult problems of justice and morality across generations.

## II. CLARIFYING THE PROBLEMS OF INTERGENERATIONAL ETHICS

The problems of intergenerational ethics are notoriously some of the most difficult in moral and political philosophy. There are many reasons why this is so, but before we begin to explore the thickets of argument that surround these problems, we ought to seek as much clarity as we can about what the problems really concern. One way to begin is to make the problems concrete. Another is to define some terms. Let us begin with the examples and then work on the definitions.

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REV. 921 (2000) ("address[ing] the role of intergenerational equity in telecommunications reform").

*A. Scenarios: Concrete Examples of the Problems of Intergenerational Ethics*

Consider the following situations, contexts, or examples, each of which raises, in some sense, a problem of ethics, morality, or justice between the generations. Although each example is based loosely on a real world problem of intergenerational ethics, I am making a variety of simplifying assumptions and my description of the examples should not be read as entailing claims about the corresponding real world problems. Each example or context is given a name for ease of reference.

*Case One: Care and Feeding.* The most familiar context in which questions of duty between one generation and another arise is that of parents' duties to care for their children. Almost everyone agrees that such a duty exists as a matter of morality or ethics, and the law recognizes such a duty. Although exceptional circumstances can create special problems,<sup>7</sup> *care and feeding* is for the most part an easy case.

*Case Two: Nursing the Elderly.* The first example, *care and feeding*, involves the moral duties of parents to their children. The obvious corollary is the duty that children may have to care for their elderly parents. Although there is general agreement that children should care for their elderly parents, there is considerable disagreement about the extent and form of that duty. Do children have a duty to take elderly parents into the children's home? How great a share of the child's resources ought to be devoted to care for the elderly? Should this be a social responsibility rather than an individual one? These are all questions of intergenerational ethics.

*Case Three: Social Security.* Suppose that the "Baby Boomer" generation is numerically substantially larger than two succeeding generations called "Generation X" and "Generation Y." If Social Security is financed by having each generation that is

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7. Special problems include those that arise when parents die and the duties may shift to grandparents, other relatives, or the state; the special questions when parents are very, very poor or very, very rich; the special problems of children whose basic needs can only be met by extraordinary resources; and so forth.

currently working pay for the social security benefits of the generation that has retired, then members of Generation X and Generation Y will be required to pay a substantially greater share of current income for the social security benefits of the Baby Boomers than the Baby Boomers paid for the social security benefits of their parents and grandparents. Such a situation would raise questions of distributive justice: is it fair for one generation to bear a larger burden than another?

*Case Four: Legacies and Bequests.* Another familiar context is that of intergenerational wealth transfers. Do parents have a duty to save during their lifetimes and transfer some of this wealth to their children or other descendants? Again there may be special cases,<sup>8</sup> but the ordinary understanding is that bequests and legacies are gifts, and that parents do not have a duty to save for such bequests or to leave money to their children. In the usual case, parents may wish to leave such a bequest and we count such a wish as virtuous. As a matter of distributive justice, however, it might be argued that intergenerational wealth transfers are unjust, insofar as they operate to perpetuate inequalities of wealth and income.

*Case Five: Entailed Estates.* The law may make it possible for parents to ensure that their children and their children's children's children receive a roughly equal share of the parents' wealth. The classic device in English law for achieving this goal was the entailed estate,<sup>9</sup> and the law sought to prevent the achievement of this end with the rule against perpetuities.<sup>10</sup> The notion that one had a duty to preserve wealth for distant generations once held great currency, but today this is generally thought to be a bad idea, absent special circumstances.

*Case Six: Disastrous Global Warming.* The prior five cases involve contexts in which future contingencies can, for the most

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8. For example, parents may owe a duty to leave a legacy to children with extraordinary needs. Parents who have imposed special burdens on their children may have a duty of restitution that can be fulfilled by a legacy or bequest.

9. See W. Barton Leach, *Perpetuities in a Nutshell*, 51 HARV. L. REV. 638, 638-40 (1938).

10. See *id.*

part, be reckoned and calculated.<sup>11</sup> The progress of science has, ironically, created an awareness of risks to future generations that may not easily be reduced to calculable probabilities of quantifiable harms. Global warming might be such a case.<sup>12</sup> Assume for the purposes of this article that consumption of greenhouse gases by the current generation poses an unquantifiable risk of global environmental catastrophe for our children's children's children (where that phrase is taken to mean our descendants who will be alive at a time when we are all dead). What duty do we owe them? How much of our welfare ought to be sacrificed for a nonquantifiable chance of an improvement in theirs?

*Case Seven: Persistent Plutonium.* Imagine that use of a very clean, very efficient plutonium-based nuclear fission reactor will pay very substantial economic and environmental dividends for the generation or two in which the reactor is in service (say a total economic savings of \$100,000,000 and health benefit equivalent to saving 100 lives per plant).<sup>13</sup> Imagine further that containment of plutonium is not perfect, that, if released into the environment, even miniscule quantities of plutonium can cause cancers, and that plutonium persists in the environment for a very long time. Assume that each reactor will also cause one cancer death every 20 years for a period of 500,000 years (for a total of 25,000 deaths and associated economic costs of \$2,500,000,000). Unlike global warming, I shall assume that *persistent plutonium* involves calculable risks and quantifiable consequences.

*Case Eight: Reparations for Slavery.* Suppose that one group in a past generation had enslaved a group of persons whose

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11. Of course, when we discuss transfers of wealth to future generations, there are risks of unforeseen events. The entailed estate may come to a child whose survival depends on drawing down the principal. The probabilities of such events can be roughly estimated and even planned for, or at least so I shall assume for the purposes of this article.

12. Global warming was simply opaque to generations in the early twentieth century and before. They did not know about the uncertainties. See Berkovitz, *supra* note 1, at 246.

13. These numbers are entirely hypothetical. There is, of course, a substantial debate about the economics and safety of nuclear power. See *id.*

descendents are identifiable. Does the current generation of persons who are not descendents of slaves owe the current generation of persons who are descendents of slaves compensation? This case of intergenerational ethics is different from the others, for two reasons. First, it is backward looking (ethical duties arising from past generations), and second, it involves relationships between members of the same generation (current descendents and nondescendents of slaves).

*Case Nine: Economic Development.* Each generation is faced with questions about how much to consume versus how much to invest. If the current generation consumed everything and invested nothing (in the form of capital equipment, technological innovations, and so forth), then the next generation would be no better off (or perhaps worse off) than the current one. If, however, the current generation forwent all unnecessary consumption and invested as much as possible in ways that would improve the lot of the next generation, then the next generation would presumably be much better off. The case of economic development simply refers to this tradeoff between consumption and investment.

*Case Ten: Population Policy.* Assume that an imaginary nation can adopt one of two population policies. The pro-growth policy will produce a much larger total population in 100 years, but that the average standard of living for that population will be relatively low. The population control policy will produce a much smaller total population in 100 years, but the average standard of living for that population will be relatively high. Of course, the choice between the two policies will determine whether potential future persons are ever born.

Our exploration of the problems of intergenerational ethics will occasionally refer back to these cases (*care and feeding, nursing the elderly, social security, legacies and bequests, entailed estates, global warming, persistent plutonium, reparations for slavery, economic development, and population policy*). Let us turn our attention to concepts and definitions, and attempt to devise tools that will enable us to put the various dimensions of the problem in some kind of order.

### *B. Concepts and Definitions*

We shall begin with the notion of a generation and the meaning of intergenerational. We shall then proceed to a sketch of the conceptual landscape of the ethical dimension of intergenerational ethics. After noting a distinction between political and personal morality, we will focus on the concept of justice, and the various ways that concept can be specified.

#### 1. The meaning of intergenerational

##### *a. three meanings of generation*

Discussions of intergenerational justice might be founded on the notion of a generation. Popular ideas about generations are somewhat muddled. There are several distinct senses of the term "generation," three of which are explored here.

##### *i. demographic cohort generations*

We sometimes talk about the duties owed by the Baby Boomer generation to their parents or of the difficulties that Generation X'ers (or Y'ers) will face in paying the Social Security. Of course, the notion of a generational cohort is mostly cultural, although some great event (such as World War II) may create a fuzzy-edged demographic unit (the Baby Boomers) that may be a useful shortcut for the discussion of public policy questions (e.g., Case Seven: *social security*) that involve issues of intergenerational justice. For the sake of precision, let us call this notion of a generation, a "demographic cohort generation" (or DCG, for ease of reference). Note that membership in a DCG is based on fuzzy criteria. Consider the DCGs involved in *social security*. Persons born in 1954 are almost certainly considered Baby Boomers; persons born in 1970 are very likely Generation X'ers, but absent a stipulated definition, there can be no sharp line between the two generations.<sup>14</sup> The underlying demographic phenomenon, the so-called Baby Boom that resulted from World War II,

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14. University of Tampere, *Guide to Recent U.S. 'Generations' (The Silent Generation, Baby Boomers, Generation X and Generation Y)*, available at <http://www.Uta.fi/FAST/US7/REF/genguide.html> (Feb. 5, 2000).



has no sharp trailing edge and hence there is no bright line demarcating the generations.<sup>15</sup>

ii. lineal descent generations

The notion of a generation may be somewhat sharper edged in the context of a family where grandparents, parents, and children form distinctive cohorts that form well-defined familial generations. Of course, as the definition of a family grows more inclusive, the line between generations will grow fuzzier.

Thus, imagine a family defined by an initial pair of parents (generation 1 = 2 parents), with many children (generation 2 = 10), and more grandchildren (generation 3 = 28) and great-grandchildren (generation 4 = 49). Now add spouses, whose ages vary from the lineal descendants of the initial pair in a roughly normal distribution. At a family reunion, there will be a precisely defined answer to the question as to what generation a given lineal descendent of the initial pair belongs. On the other hand, some great-grandchildren will be older than some grandchildren, and some spouses will be older than their partners' aunts or uncles, or younger than their partners' nephews and nieces. Once the notion of a generation is considered in an extended family with more than one line of descent, with the parents or siblings of spouses added, it becomes ambiguous or fuzzy; when only one line of descent is involved, then generations can be defined with precision, although age cohorts and generations need not coincide. Let us refer to the precise conception of a generation within a single line of lineal descent as a "lineal descent generation" (LDG, for short).

iii. unborn future generations

There is yet another use of the term generation that figures into discussions of intergenerational justice. We use the phrase "future generations" to refer to the persons who will exist in the future but who are not yet born. Sometimes by this phrase we mean persons who will not be born during the lifetime of the speaker and her audience, or even during the lifetime of any person now alive. This last

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15. The Baby Boom generation may have a relatively sharp leading edge, the end of World War II in 1945.

meaning is particularly important for some problems of intergenerational justice, because our duties towards persons who will not be born until after every person now alive is dead may be especially problematic. Let us stipulate that when we use the phrase "unborn future generations" (UFGs, for short), we shall refer to all future persons who will not be born until the last person now alive has died.<sup>16</sup> Of course, some members of a UFG will belong to the same LDG as a person now alive; these are two quite different senses of the term generation. Less frequently discussed are "deceased former generations" (DFGs), e.g., persons who lived at a former time but who are now all deceased.

*b. the meaning of intergenerational*

The phrase "intergenerational" obviously means "between generations," but because the notion of a generation is ambiguous, the phrase is ambiguous as well. We might refer to relationships between DCGs, or between LDGs, or between the current generation and UFGs. Each of these meanings of intergenerational is distinct, and we should attempt to avoid any confusion that might result from ambiguity.

One final point about the meaning of generations can be explored in the context of a thought experiment. Imagine a planet inhabited by an intelligent species (call them the "fenix") that is somewhat similar to humans with the following dramatic exceptions. This species reproduces through eggs. All of the females of species lay their eggs at more or less the same time, and all of the eggs hatch at more or less the same time following the deaths of all of the parents. Young fenix emerge from the eggs able to feed and care for themselves, with food, shelter, and clothing that have been prepared by their now deceased parents. For the fenix, the idea of a generation is precise. Everyone knows exactly the generation to which they belong. Demographic cohorts correspond exactly with lineal descent generations, and from the point of view of the fenix parents, every

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16. I mean the concept of a UFG to be a relative and not an absolute one. Although I shall usually use today as the point in time by which UFGs are defined, we can also speak of UFGs relative to past generations or future generations.

fenix child is a member of an unborn future generation. The fenix thought experiment demonstrates that the ambiguity in the term "generation" is a function of the form of life that is characteristic of humans and a product of human biology.

*c. the structure of intergenerational duties*

Some issues of intergenerational justice may involve intergenerational rights or duties. A first distinction concerns the direction of the duty in time. A current generation may owe a duty to past generations. Intergenerational ethics may involve backward-looking duties (younger to older generations) or forward-looking duties (older to younger generations), and such duties may be contemporaneous (owed while the older and younger generations coexist) or non-contemporaneous (owed to persons yet unborn or deceased). The following table illustrates the possibilities:

TABLE 1: EXAMPLES OF INTERGENERATIONAL DUTIES

	Backward Looking	Forward Looking
Contempo- raneous	<i>Social Security</i> (The duty of the younger working generation to finance social security benefits for the elderly)	<i>Care and Feeding</i> (The duty of parents to care for their children)
Non- contempo- raneous	<i>Reparations</i> (The duty of a current generation to compensate a deceased former generation for an injury done to them) <sup>17</sup>	<i>Persistent Plutonium</i> (The obligation of the current generation not to cause pollution that will injure unborn future generations)

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17. This is a complex case. A duty of reparations might be seen as being owed to the current generation for the disadvantages that have been imposed on them. It is at least possible, however, that the duty is actually owed to those who were injured (enslaved, for example), but that this obligation can only be discharged by aiding the descendents of those who were directly injured.

## 2. The dimensions of intergenerational ethics

Frequently, the topic of morality between and among generations is characterized as a problem of "intergenerational justice"<sup>18</sup> or sometimes "intergenerational equity."<sup>19</sup> This may well be the case, but before we focus on justice, we need to consider the alternatives. Let us consider initially, the distinction between personal and political morality.

### *a. personal and political morality*

Justice is not the only moral or ethical concept. Some of our moral obligations are obligations of justice, but there are other moral concepts such as beneficence, temperance, caring, and charity. Moreover, we should consider the possibility that there is a distinction between the ethical considerations that bear on decision making by individuals and the considerations of political morality that govern decisions made by public institutions. For example, the case of *legacies and bequests* deals with the morality of intergenerational wealth transfers. It would not be implausible to believe that justice has little role to play in this case. Perhaps ethics does come into play when I decide whether to leave an estate for my children or spend the money on travel, but it does not seem quite natural to say that either decision could be characterized as unjust. Spending the money now might be unloving, uncaring, or uncharitable, but it would hardly be unjust. The decision to make a bequest is a personal one, although it

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18. See generally ECONOMIC SECURITY AND INTERGENERATIONAL JUSTICE: A LOOK AT NORTH AMERICA (Theodore R. Marmor et al. eds., 1994) (examining various dimensions of U.S. policy towards the elderly); WORKERS VERSUS PENSIONERS, *supra* note 5 (analyzing the potential inequities as a result of the ageing of the welfare state); Dennis Mueller, *Intergenerational Justice and the Social Discount Rate*, 5 THEORY AND DECISION 263 (1974) (examining intergenerational justice in the welfare state).

19. Economists sometimes use "equity" as a synonym for "justice" or "distributive justice." See, e.g., EDITH BROWN-WEISS, IN FAIRNESS TO FUTURE GENERATIONS: INTERNATIONAL LAW, COMMON PATRIMONY AND INTERGENERATIONAL EQUITY (1989) (discussing how future generations may be protected as a class); DISCOUNTING AND INTERGENERATIONAL EQUITY (Paul R. Portney & John P. Weyant eds., 1999) (discussing how to compare and evaluate policies that affect future generations); James C. Wood, *Intergenerational Equity and Climate Change*, 8 GEO. INT'L ENVTL. L. REV. 293 (1996) (discussing the "norms of intergenerational equity").

is tied to social decisions (such as whether to impose an estate and gift tax). The case of *legacies and bequests* strongly suggests that at least some questions of intergenerational ethics are not questions of intergenerational justice.

Provisionally, let us set aside the questions of personal morality, and focus on those of political morality. Once we are in the realm of the public, questions of justice come to fore. Even if justice is not the only ethical concept we need to investigate, it seems reasonable to begin there.

### *b. justice*

With the notion of a generation clarified, the next step is to turn to the concept of justice. The concept of justice is an elusive one, and even a sketchy treatment could not be accomplished in this article. Nonetheless, we need some idea of what we are talking about. One place to begin would be with Aristotle's distinction between corrective (or rectificatory) justice and distributive justice. We can then turn to the distinction between the concept of justice and the various conceptions (sets of principles or theories) that specify that concept.

#### *i. corrective and distributive justice*

In his *Nicomachean Ethics*, Aristotle distinguished between corrective (or rectificatory) justice and distributive justice.<sup>20</sup> By stipulation, let us use these terms in the following senses. Corrective justice is concerned with justice in transactions in general and the righting of wrongs in particular.<sup>21</sup> Thus, criminal punishments or damage awards in tort actions can be viewed as attempts at corrective justice. We punish the criminal or award damages from the tortfeasor to the tort victim in order to correct an injustice.<sup>22</sup> Distributive justice is concerned with sharing the benefits and burdens of social cooperation.<sup>23</sup> For example, distributive justice is implicated by the question

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20. See ARISTOTLE, *ETHICS* \*1130b32-1131a10 (Jonathan Barnes trans., Princeton Univ. Press 2d prtg. 1985) (1984).

21. See *id.*

22. It almost goes without saying that the corrective justice view of tort law or criminal law is controversial. Consequentialist views of tort law and criminal law might focus on deterrence rather than corrective justice.

23. See ARISTOTLE, *supra* note 20, at \*1130b8-1132a2.

whether there should be a so-called poll tax (the same amount to be paid by every citizen) or a flat tax (the same percentage of income paid by every citizen) or a progressive tax (those with higher incomes or consumption levels pay a higher percentage of income or consumption).

Intergenerational justice might involve either corrective or distributive justice. Consider corrective justice. For example, take the case of *persistent plutonium*. Suppose that one generation constructs and operates the plutonium power plants and then realizes the hazard. The question as to whether the polluting generation owes duties to UFGs is a question of corrective justice. The polluting generation might, for example, be obligated to create a trust fund to compensate UFGs for the injuries they will suffer or to invest in cancer research to attempt to mitigate the future harms. The case of *reparations for slavery* is also an example of corrective justice: Wrongs done by past generations may give rise to duties of corrective justice held by current generations. Finally, when limited to parents and their children, the case of *nursing the elderly* may involve corrective justice: Children may owe their parents compensation for the care and feeding that their parents provided them when the children were young.

Next consider distributive justice. Take the case of *social security* as our example. Issues about how to share the benefits and burdens of the Social Security system between DCGs are classic examples of distributive justice. Similarly, the case of *entailed estates* involves questions about the distribution of wealth between LDGs. Notice that some of our cases may involve both corrective and distributive justice. Take *nursing the elderly*: Corrective justice may be involved when we consider parents and their children, but distributive justice may be the primary focus when we consider health policy, e.g., the level of public funding for social health insurance for the elderly (Medicare).

Even though intergenerational justice can involve issues of corrective justice, I shall put such questions aside for the remainder of this article. In part, this decision is simply one of convenience; distributive justice is a large enough topic. In part, this decision is based on the premise that the issues of distributive justice are more fundamental. The question whether we have a duty to refrain from introducing persistent plutonium into the environment is a question

about the distribution of rights and obligations across generations. Before we can address questions of corrective justice, we need to know what constitutes an injustice, i.e., a violation of rights or failure to meet obligations. If the generation that introduces persistent plutonium does no wrong, then corrective justice never arrives on stage.

## ii. concepts and conceptions of justice

When we talk about distributive justice, what we mean will depend on our theory of distributive justice. Following John Rawls, let us make a distinction between the *concept* of distributive justice and particular *conceptions* (theories or sets of principles) of distributive justice.<sup>24</sup> Egalitarians, libertarians, and utilitarians might all agree that rights, resources, and burdens should be justly distributed across generations, but they would likely disagree about what that means. Libertarians might emphasize the idea that one generation may not constrict the basic rights and liberties of future generations, while egalitarians might conceivably hold that each generation has an equal claim on natural resources. They all have views about the concept of distributive justice, but they disagree about what is the best, correct, or true conception. When we turn to the subject of intergenerational justice, the distinction between concept and conceptions can be used to raise two helpful questions. First, we may ask whether the concept of justice is the right one to handle the concrete problems that we need to address. Perhaps it is the concept of beneficence or that of temperance that comes into play, and not that of justice at all. Second, we ask how different conceptions of justice handle the problem of intergenerational justice.

## III. THEORIES OF DISTRIBUTIVE JUSTICE

Simplifying greatly, let us assume that there are three families of thought about distributive justice. Here I will provide a sketch of the ideas that unite each family and of some of the disagreements that exist within these schools of thought. After the general ideas of each

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24. See JOHN RAWLS, A THEORY OF JUSTICE 5 (rev. ed. 1999) [hereinafter THEORY OF JUSTICE] (“[I]t seems natural to think of the concept of justice as distinct from the various conceptions of justice and as being specified by the role which these different sets of principles, these different conceptions, have in common.”).

theory are described, I shall provide a brief outline of a particular theory that is a member of the family, and then briefly explore some of the implications of that theory for problems of intergenerational justice.

The first family, I shall call "egalitarian." The second family, I shall call "libertarian." And the third family, I shall call "utilitarian." I do not mean to imply that these theories exhaust the possibilities or classify current or historically important views. Rather, the three families classify and illustrate some of the most important thinking about distributive justice.

### *A. Egalitarian Theories of Distributive Justice*

Consider first the family of egalitarian theories. We shall begin with the general idea of an egalitarian theory. We shall then turn to justice as fairness, the particular egalitarian theory developed by John Rawls.<sup>25</sup> Finally, we shall consider the implications of Rawls's theory for the question of intergenerational justice.

#### 1. The general idea of an egalitarian theory

As I shall use the term, the core idea of an egalitarian theory of distributive justice is that the relevant outcomes or institutions should provide each and every relevant individual or group an equal (or equality-based) share of the relevant goods, resources, capacities, opportunities, entitlements, or states. This formulation is so abstract that it does not tell us much. Four elements of the core idea require further specification. First, what are the relevant goods? Second, what is an equal or equality-based share? Third, what are the relevant outcomes or institutions? Fourth, which individuals or groups are relevant?

To get a better sense of these four questions, let us take one simplified example of an egalitarian theory. Let us suppose that the relevant good is pleasure and an absence of pain. Let us further suppose that by an equal share, we mean that each person should receive roughly the same balance of pleasures and pains.<sup>26</sup> Next, let us

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25. See *id.* at 10-15.

26. To make the simple theory plausible, we shall say "rough" equality. If precise equality were required, almost all of society's resources might be con-



suppose that the equal share of pleasure and pain is to be measured in terms of an outcome, i.e., the accrued balance of pleasures and pains over the whole life of each individual. Finally, let us suppose that each and every human being currently alive is the relevant group. The resulting theory of distributive justice is that each person ought to achieve roughly the same amount of pain and pleasure over the course of her lifetime. Call this view "hedonistic egalitarianism." This may not be a theory anyone is likely to advocate, but it illustrates the kinds of answers that can be given to the various questions facing an egalitarian theory.

One final comment on the general idea of an egalitarian theory of distributive justice: The first question, "What is the relevant good?" has been the subject of a substantial debate between and among egalitarians and their critics. The question, "Equality of what?" has produced a remarkable variety of answers, including "equality of welfare," "equality of opportunity for welfare," "equality of resources," and so forth.<sup>27</sup>

## 2. Justice as fairness

Perhaps the most prominent egalitarian theory of distributive justice is "justice as fairness,"<sup>28</sup> the theory advanced by John Rawls in *A Theory of Justice*<sup>29</sup>, *Political Liberalism*,<sup>30</sup> and *Justice as Fairness: A Restatement*.<sup>31</sup> As Rawls explains, "[t]he aim of justice as

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sumed in measuring and rectifying minute differences. This would make the theory extremely unattractive.

27. See, e.g., AMARTYA SEN, *INEQUALITY REEXAMINED* (1992); Richard J. Arneson, *Equality and Equal Opportunity for Welfare*, 56 PHIL. STUD. 77 (1989); G.A. Cohen, *Equality of What? On Welfare, Goods, and Capabilities*, in THE QUALITY OF LIFE 9 (Martha C. Nussbaum & Amartya Sen eds., 1993); G.A. Cohen, *On the Currency of Egalitarian Justice*, 99 ETHICS 906, 920-21 (1989); Ronald Dworkin, *What Is Equality? Part 2: Equality of Resources*, 10 PHIL. & PUB. AFF. 283 (1981); John E. Roemer, *Equality of Resources Implies Equality of Welfare*, 101 Q.J. ECON. 751 (1986); Amartya Sen, *Equality of What?*, in THE TANNER LECTURES ON HUMAN VALUES 195 (Sterling M. McMurrin ed., 1980), reprinted in AMARTYA SEN, *CHOICE, WELFARE AND MEASUREMENT* 353 (1982).

28. THEORY OF JUSTICE, *supra* note 24, at 3-46.

29. *Id.*

30. JOHN RAWLS, *POLITICAL LIBERALISM* (1996) [hereinafter *POLITICAL LIBERALISM*].

31. JOHN RAWLS, *JUSTICE AS FAIRNESS: A RESTATEMENT* (Erin Kelly ed.,

fairness . . . is practical: it presents itself as a conception of justice that may be shared by citizens as a basis of a reasoned, informed, and willing political agreement."<sup>32</sup> An adequate summary of Rawls's rich and complex theory is outside the scope of this article, but the portion of his theory that is most relevant to our current enterprise is his presentation of the argument for two principles of justice.<sup>33</sup> The full statement of the principles and the accompanying priority rules and general conception is as follows, with changes made in *Political Liberalism* and *Justice as Fairness: A Restatement* set in brackets in the text and noted in appropriate footnotes:

*First Principle*<sup>34</sup>

Each person has the same indefeasible claim<sup>35</sup> to a fully

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2001) [hereinafter JUSTICE AS FAIRNESS].

32. POLITICAL LIBERALISM, *supra* note 30, at 9.

33. *See id.* at 5-6; *see also* JUSTICE AS FAIRNESS, *supra* note 31, at 42-43.

34. It is no longer clear that the first principle is indeed first. After stating the two principles in *Political Liberalism*, Rawls adds that important aspects of the principles are absent from the brief statement given. In applying the first principle, one must assume that "equal basic rights and liberties may easily be preceded by a lexically prior principle requiring that citizens' basic needs be met, at least insofar as their being met is necessary for citizens to understand and to be able fruitfully to exercise those rights and liberties." POLITICAL LIBERALISM, *supra* note 30, at 7 (citing R.G. PEFFER, MARXISM, MORALITY, AND SOCIAL JUSTICE (1990) as representative of his view with some modification). Later in *Political Liberalism*, Rawls states that this new principle, which we might call the basic-needs principle, is one of the constitutional essentials. *See id.* at 166, 228.

Peffer's modified version of Rawls's principles includes the following principles, ranked first in lexical priority: that everyone's basic subsistence rights are to be met, that "everyone's physical integrity is to be respected and everyone is to be guaranteed a minimum level of material well-being including basic needs, i.e., those needs that must be met in order to remain a normally functioning human being." PEFFER, *supra*, at 14. The remainder of Peffer's principles are substantially equivalent to Rawls's version with one exception. Part (b) of Peffer's third principle requires "an equal right to participate in all social decision-making processes within institutions of which one is a part." *Id.* Rawls rejects this principle on the ground that it can only be satisfied by socialism and that the institutional question whether socialism is the preferred form of government should not be settled by the principles of justice but should instead be reserved for the constitutional or legislative stage. *See* POLITICAL LIBERALISM, *supra* note 30, at 7 n.7. The issue is too complex to take up here, but I am far from certain that socialism is the only form of social organization that could satisfy Peffer's principle 3(b).

35. JUSTICE AS FAIRNESS, *supra* note 31, at 42.

adequate scheme of equal<sup>36</sup> basic liberties, which scheme is compatible with the same scheme of liberties<sup>37</sup> for all. . . .<sup>38</sup>

*Second Principle*

Social and economic inequalities are to be arranged so that they are both:

(a) to the greatest benefit of the least advantaged, consistent with the just savings principle, and

(b) attached to offices and positions open to all under conditions of fair equality of opportunity.

*First Priority Rule (The Priority of Liberty)*<sup>39</sup>

The principles of justice are to be ranked in lexical order, and therefore, liberty can be restricted only for the sake of liberty. There are two cases:

(a) a less extensive liberty must strengthen the total system of

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36. *Political Liberalism* amends the first principle, substituting "fully adequate scheme" for "the most extensive total system." *POLITICAL LIBERALISM*, *supra* note 30, at 291.

37. *JUSTICE AS FAIRNESS*, *supra* note 31, at 42.

38. *Political Liberalism* adds "and in this scheme the equal political liberties, and only those liberties, are to be guaranteed their fair value." *POLITICAL LIBERALISM*, *supra* note 30, at 5. The guarantee of the fair value of the political liberties "means that the worth of the political liberties to all citizens, whatever their social or economic position, must be approximately equal, or at least sufficiently equal, in the sense that everyone has a fair opportunity to hold public office and to influence the outcome of political decisions." *Id.* at 327. Although Rawls offers arguments against guaranteeing a wider guarantee of fair value in general and a guarantee of the fair value of the religious liberties in particular, he does not offer such an argument against guaranteeing the fair value of the liberties expressed by the idea of the rule of law, i.e., those associated with procedural due process. There are good reasons, however, to believe that the fair value of the rights of Due Process should be guaranteed. First, the guarantee provided by the second principle of justice will frequently not suffice to secure their fair value. (Litigating one's civil rights or defending a criminal case can be quite expensive.) Second, unlike the religious liberties, guaranteeing the equal worth of the liberties covered by the rule of law would not be socially divisive. Third, because at least some forms of litigation can shape the constitutional structure, the reasons for underwriting the political liberties may apply to the liberties covered by the rule of law as well. On these matters, see Alan Wertheimer, *The Equalization of Legal Resources*, 17 *PHIL. & PUB. AFF.* 303 (1988).

39. As noted above, *supra* note 34, there may be an additional priority rule, since the basic-needs principle may be lexically prior to the equal-liberty principle.

liberties shared by all;

(b) a less than equal liberty must be acceptable to those with the lesser liberty.

*Second Priority Rule* (The Priority of Justice over Efficiency and Welfare)

The second principle of justice is lexically prior to the principle of efficiency and to that of maximizing the sum of advantages; and fair opportunity is prior to the difference principle. There are two cases:

(a) an inequality of opportunity must enhance the opportunities of those with the lesser opportunity.

(b) an excessive rate of saving must on balance mitigate the burden of those bearing this hardship.

*General Conception*

All social primary goods—liberty and opportunity, income and wealth, and the bases of self-respect—are to be distributed equally unless an unequal distribution of any or all of these goods is to the advantage of the least favored.<sup>40</sup>

The argument for the two principles is rich and complex and cannot be summarized here. Two important ideas deployed in that argument, the “original position” and “reflective equilibrium,” are discussed in the sections that follow.<sup>41</sup> Very broadly, we might say that Rawls argues that the two principles are those “that free and rational persons . . . would accept in an initial position of equality as defining the fundamental terms of their association.”<sup>42</sup> The “initial position of equality” is specified by laying out a hypothetical choice situation, “the original position,” where representative parties select from a list of alternative principles of justice from behind a “veil of ignorance” which excludes from the parties knowledge of “how the various alternatives will affect their own particular cases.”<sup>43</sup> We aim for a theory that is in reflective equilibrium in the sense that our considered judgments, about specific cases and general principles, are as consistent with one another as is possible.

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40. See *THEORY OF JUSTICE*, *supra* note 24, at 54.

41. See *infra* Part IV.B & C.

42. *THEORY OF JUSTICE*, *supra* note 24, at 10.

43. *Id.* at 134-35.

It is illuminating to contrast Rawls's theory with our simplified theory of hedonistic egalitarianism. Hedonistic egalitarianism answers the "equality of what" question with pleasure and pain. Rawls answers that question with the primary goods,<sup>44</sup> which include rights (such as freedom of speech) as well as wealth and income. Hedonistic egalitarianism takes individual lives as its subject. Justice as fairness, by way of contrast, takes the basic structure of society as the subject of justice.<sup>45</sup> Hedonistic egalitarianism applies directly to individuals, whereas justice as fairness applies to the basic institutions (the structure of government and the economic system). If the basic structure is just, then justice as fairness does not condemn inequalities at the individual level, but hedonistic egalitarianism would condemn such inequalities.<sup>46</sup>

Hedonistic egalitarianism requires "rough equality," acknowledging that strict equality of pleasures and pains is both impossible to measure and futile as a goal. Rawls's theory does not require even rough equality with respect to all relevant goods. Instead, the first principle requires strict equality with respect to the basic liberties (such as freedom of speech), while the second principle permits differences in wealth and income so long as such differences work to the advantage of those who are least well off. Moreover, Rawls's theory does not apply directly to the share of the basic goods held by particular individuals; rather, it applies to the basic structure of society. Even if the basic structure is just, the two principles may not be achieved with respect to each and every individual.<sup>47</sup>

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44. For Rawls's discussion of the primary goods, see *id.* at 78-81 and JUSTICE AS FAIRNESS, *supra* note 31, at 168-76.

45. For a discussion of the basic structure of society as the subject of justice, see THEORY OF JUSTICE, *supra* note 24, at 6-10 and JUSTICE AS FAIRNESS, *supra* note 31, at 10-12.

46. Notice, however, that hedonistic egalitarian tolerates inequalities within individual time-slices of lives, so long as those inequalities are roughly balanced over the course of whole lives.

47. Thus, the basic liberties may not be respected for a particular individual for a variety of reasons. For example, a rogue official may violate these rights, even though an effective legal system is in place.

### 3. Justice as fairness between generations

How then does justice as fairness handle the problem of intergenerational justice? Section 44 of *A Theory of Justice*<sup>48</sup> is the classic<sup>49</sup> modern treatment of the issue.<sup>50</sup> Recall that the difference principle requires that social and economic inequalities are to be arranged so that they are to the greatest benefit of the least advantaged, *consistent with the just savings principle*. Why does the difference principle need to be supplemented by a just savings principle? To begin, the difference principle alone does not address the problem of intergenerational justice. Although actions by the current generation affect future generations (UFGs), no generation can aid its predecessors. As Rawls puts it, "It is a natural fact that generations are spread out in time and actual economic benefits flow only in one direction. This situation is unalterable, and so the question of justice does not arise."<sup>51</sup> Moreover, without a just savings principle, the current generation might make the least advantaged better off by consuming all capital resources, leaving nothing for future generations.

Recall that the two principles of justice were adopted by the parties to an original position behind a veil of ignorance. One way to derive a just savings principle might be to exclude from the parties knowledge of the generation to which they belong, but this is not the route Rawls chooses. Instead, the parties know that they are contemporaries<sup>52</sup> but they do not know the place of their generation in time.<sup>53</sup> They adopt the savings principle that "they would want

48. THEORY OF JUSTICE, *supra* note 24, at 251-58.

49. See Peter Laslett & James S. Fishkin, *Introduction: Processional Justice*, in JUSTICE BETWEEN AGE GROUPS AND GENERATIONS 20 (Peter Laslett & James S. Fishkin eds., 1992) ("It was the appearance in 1971 of *A Theory of Justice* by John Rawls that marked the proper initiation of obligations to future generations as a topic of salient philosophical interest . . .").

50. There are, of course, many other important treatments, many of which predate *A Theory of Justice*. See, e.g., Jan Narveson, *Utilitarianism and Future Generations*, 76 MIND 62 (1967).

51. THEORY OF JUSTICE, *supra* note 24, at 254.

52. See *id.*

53. See JUSTICE AS FAIRNESS, *supra* note 31, at 160. This differs from the account in *A Theory of Justice*, where Rawls assumed that the parties in the original position represented family lines. THEORY OF JUSTICE, *supra* note 24, at 254.

preceding generations to have followed, no matter how far back in time."<sup>54</sup>

Rawls did not believe that it was possible to specify a just savings rate with particularity.<sup>55</sup> However, some limits on such rates can be articulated:

[A] savings principle is a rule that assigns an appropriate rate (or range of rates) to each level of advance. . . . Presumably different rates are assigned to different stages [of economic development]. When people are poor and saving is difficult, a lower rate of saving should be required; whereas in a wealthier society greater savings may reasonably be expected since the real burden of saving is less. Eventually, once just institutions are firmly established and all the basic liberties effectively realized, the net accumulation asked for falls to zero. At this point, a society meets its duty of justice by maintaining just institutions and preserving their material base.<sup>56</sup>

The just savings principle addresses only some of the issues of intergenerational ethics. It is most obviously relevant to *economic development*, but it may have implications for other cases as well. For example, the state of the environment can be viewed as a capital resource, and hence intergenerational pollution might be constrained by the just savings principle. Thus, policy choices about *persistent plutonium* and *global warming* might be constrained by the just savings principle, although the constraint might be fairly loose. Degrading the environments of future generations would be consistent with the just savings principle so long as the total bundle of primary goods passed to future generations was adequate.

Some of the other cases are addressed or influenced by the two principles of justice as well. For example, the case of *legacies and bequests* is not directly addressed; assuming a just basic structure, each individual is free to make such gifts or bequests as she pleases. Rawls does believe, however, that the difference principle may require some form of taxation to be levied on the recipient of

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54. JUSTICE AS FAIRNESS, *supra* note 31, at 160.

55. See THEORY OF JUSTICE, *supra* note 24, at 252-53.

56. *Id.* at 255.

bequests.<sup>57</sup> Similarly *nursing the elderly* involves issues that are not directly constrained by the just savings principle if we focus on the duties of parents to their children, although a social guarantee of adequate medical care may be required by the difference principle.<sup>58</sup> *Social security* is directly addressed by the difference principle, and it may well be that a generous system of social security payments is required in order to insure that those who are least advantaged benefit from inequalities of wealth.<sup>59</sup>

### B. *Libertarian Theories of Distributive Justice*

Again, I will begin with the general idea of libertarianism, and then proceed to discuss a particular theory, Randy Barnett's liberal conception of justice, and its implications for intergenerational ethics.

#### 1. The general idea of libertarianism

Libertarianism represents another approach to the question of distributive justice. Characteristically, libertarian theories do not impose direct constraints on the distribution of goods (wealth, income, happiness, and so forth). Rather, libertarian approaches to justice emphasize certain basic liberties, especially rights to own property and to make contracts free of interference. Locke's theory, as developed in the *Second Treatise of Government*,<sup>60</sup> is sometimes thought

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57. See JUSTICE AS FAIRNESS, *supra* note 31, at 161.

58. Whether a system of free medical care for the elderly is required and, if it is, what benefits must be provided is not a question that can be answered by direct reference to the difference principle. This sort of issue must be addressed in light of economic conditions, the state of medical care, and other variables. For example, the question might arise whether the difference principle would better be satisfied by a more generous scheme of social security benefits that would enable the purchase of private insurance as opposed to a system of government medical insurance for the elderly (Medicare). From the point of view of justice as fairness, this sort of question should be addressed by the legislature with the difference principle as a constraint on the answer.

59. This is, of course, a complex topic. One issue worth noting concerns the financing of social security retirement benefits. The difference principle might require a more progressive system of finance than now exists.

60. JOHN LOCKE, TWO TREATISES OF GOVERNMENT (Peter Laslett ed., 3d ed. 1988).



to be a libertarian theory,<sup>61</sup> with parties in the state of nature agreeing to a "night-watchman" state.<sup>62</sup> Seen from a different angle, however, libertarianism can be viewed as an egalitarian theory of distributive justice. Libertarians may believe that the relevant good to be distributed is liberty, and that each and every person ought to have the maximum possible equal share of liberty. Giving the maximum share of equal liberty implies that other goods, e.g., wealth and income, will not be distributed equally.

## 2. The structure of liberty

Let us consider a specific libertarian theory, the one advanced by Randy Barnett in *The Structure of Liberty*.<sup>63</sup> Barnett calls this set of ideas "the liberal conception of justice."<sup>64</sup> The argument for the liberal conception focuses on three central problems of human interaction: the problem of knowledge, the problem of interest, and the problem of power.<sup>65</sup> Barnett argues that, given "the goal of enabling persons to survive and pursue happiness, peace, and prosperity while living in society with others,"<sup>66</sup> these fundamental problems of human interaction create constraints on the possible forms of social organization. Unless society is organized to respect rights of several property, freedom of contract, restitution, and self-defense, the problems of knowledge, interest, and power will make it impossible for all persons (or each and every person) to survive and pursue happiness, peace, and prosperity. Barnett's liberal conception of justice is simply a detailed formulation of the content of the rights that must be respected. The full statement of the liberal conception is quoted in

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61. See Liam Murphy, *Beneficence, Law, and Liberty: The Case of Required Rescue*, 89 GEO. L.J. 605, 637 (2001).

62. See James Audley McLaughlin, *Majoritarian Theft in the Regulatory State: What's a Takings Clause for?*, 19 WM. & MARY ENVTL. L. & POL'Y REV. 161, 172 n.29 (1995); see also JAN NARVESON, *THE LIBERTARIAN IDEA* 217-21 (1988) (discussing views of the night-watchman state); ROBERT NOZICK, *ANARCHY, STATE, AND UTOPIA* 26-28, 88-119 (1974) (same).

63. RANDY E. BARNETT, *THE STRUCTURE OF LIBERTY: JUSTICE AND THE RULE OF LAW* (1998).

64. *Id.* at 63-83.

65. See *id.* at 64.

66. *Id.* at 23.

full in an accompanying footnote,<sup>67</sup> but for our purposes three of these rights are most important:

- (1) The *right of several property* specifies a right to acquire, possess, use, and dispose of scarce physical resources—including their own bodies. Resources may be used in any way that does not physically interfere with other persons' use and enjoyment of their resources. While

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67. The liberal conception of justice is given eight formulations at various points in *The Structure of Liberty*. Each formulation adds content to the conception as the problems of knowledge, interest, and power are developed. The last formulation gives the fullest sense of Barnett's views and it is quoted here in full:

FORMULATION 8. *Justice is respect for the rights of individuals and associations.*

(1) The *right of several property* specifies a right to acquire, possess, use, and dispose of scarce physical resources—including their own bodies. Resources may be used in any way that does not physically interfere with other persons' use and enjoyment of their resources. While most property rights are freely alienable, the right to one's person is inalienable.

(2) The *right of first possession* specifies that property rights to unowned resources are acquired by being the first to establish control over them and to stake their claim[.]

(3) The *right of freedom of contract* specifies that a rightholder's consent is both necessary (freedom *from* contract) and sufficient (freedom *to* contract) to transfer alienable property rights—both during one's life and, by using a "will," upon one's death. A manifestation of assent is ordinarily necessary unless one party somehow has access to the other's subjective intent.

(4) Violating these rights by *force or fraud* is unjust.

(5) The *right of restitution* requires that one who violates the rights that define justice must compensate the victim of the rights violation for the harm caused by the injustice, and such compensation may be collected by force, if necessary. The *principle of strict proportionality* limits the amount of restitution to that which is necessary to fully compensate, but not overcompensate, the victim.

(6) The *right of self-defense* permits the use of force against those who threaten to violate the rights of another. Normal self-defense is permissible when the commission of a rights violation is imminent. Extended self-defense is permissible when a person has communicated, by prior rights violations or some other prior conduct proven to a high degree of certainty, a threat to violate rights in the future. Self-defense should be proportionate to the risk posed by the threat.

*Id.* at 214 (emphasis omitted).

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Barnett's libertarianism implies a very limited role for government. At the most, government should protect private property and enforce contracts. Even that role may not be justified if private courts and law enforcement agencies can be created by voluntary agreements.

### 3. The structure of intergenerational justice

Barnett's theory does not directly address questions of intergenerational ethics, but his principles bear on several of the cases.<sup>69</sup> The right of first possession implies that resources may be appropriated by the first generation to which they become available. The right of several property implies that the owner may consume the resource without regard to future generations, and the right of freedom of contract implies that this right to consume may be transferred to others. These principles imply that future generations have no rights against their predecessors. They may acquire rights, either because their predecessors give them rights by contract or by leaving property fallow and hence subject to first appropriation. Of course, all individuals are born with a property right in their own persons, but this right is good only against contemporaries.

How does Barnett's theory bear on particular problems of intergenerational ethics? In Barnett's scheme, *care and feeding*, *legacies and bequests*, and *nursing the elderly* involve matters for private

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68. *Id.*

69. *See id.*

choice. Similarly, Barnett would contend that a system of compulsory social security insurance is unjust, and hence the particular problem of equity between boomers and X'ers that is raised by *social security* would be seen as entirely misguided. The case of *entailed estates* is more complex, although the main thrust of Barnett's theory would seem to suggest that the creation of entailments should be a matter for private decision.<sup>70</sup>

How would libertarians handle *persistent plutonium* or *disastrous global warming*? A very superficial answer would be to assume that libertarians would champion a liberty to pollute, but this is not necessarily the case. Recall that the right to several property states that resources may be used in any way that does not physically interfere with other persons' use and enjoyment of their resources.<sup>71</sup> Neither persistent plutonium nor disastrous global warming involves one person's use of her property causing direct physical interference. *Persistent plutonium* clearly involves an indirect physical interference.<sup>72</sup> By way of analogy, if you poison me by placing arsenic in my food, you have interfered with my use of my property in my own body. Similarly, if you release plutonium into the environment and that plutonium enters my body without my permission and results in my death, you have indirectly interfered with my use of my property.

I am not sure whether Barnett would view this sort of indirect interference as violating the right of several property, but let us assume that he would. This then triggers the right of self-defense, which permits the use of force against those who threaten to violate the rights of another.<sup>73</sup> Self-defense is an inadequate remedy, however, if the violator of my property rights is already deceased. We

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70. *See id.*

71. *See id.* at 214.

72. *Disastrous global warming* may also involve physical interference, but it is even more attenuated. Unlike *persistent plutonium*, global warming does not involve the physical invasion of one's chattels, land, or body by unwanted particles. Less rain does not seem to be a physical invasion at all. On the other hand, global warming does cause a physical interference. Consider an analogy: If I place a warming machine on my land, and as a result, your crops shrivel, we would normally say that I have physically interfered with your use of your property.

73. *See* BARNETT, *supra* note 63, at 185.

cannot defend ourselves against past generations; we need not defend ourselves against unborn future generations.

It is not clear how Barnett would react to this possible lacuna in the liberal conception of justice. He might argue that allowing government to violate the rights of several property and freedom of contract in the name of future generations would run into problems of knowledge, interest, and power. It is possible that the effect of such problems would be so substantial that future generations could not survive and pursue happiness, peace, and prosperity if the liberal principles were amended to allow for government action to protect future generations.

How might the liberal conception of justice be superior to other approaches from the point of view of future generations? The principal argument that Barnett could advance is based on the notion that the value of property includes discounted future values. A piece of land is worth more today if it will have greater worth to future generations. This gives the current owners of property an incentive to preserve its value. In other words, a property system creates incentives to preserve resources for future use. Governments, on the other hand, may not have such incentives. Future generations cannot vote and therefore politicians may not consider their interests. The general argument that property creates incentives to preserve resources for future use has a more particular instantiation in case of ownership interests in corporations. Because a corporation may exist across generations, the management and shareholders in a corporation have incentives to act with regard to the interests of future generations. Of course, the question of whether a libertarian regime will do better than a regime that yields more power to government with respect to future generations is a complicated one, but the property argument certainly suggests that there is a libertarian position on this issue that ought to be considered.<sup>74</sup>

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74. Another possibility is that Barnett would allow members of the current generation to act as proxies for future generations. Thus, we might imagine that any person could use proportionate force to prevent the release of plutonium deadly to future generations. This solution poses certain problems, because it may be in the interest of future generations to strike up an intergenerational contract. For example, plutonium reactors might have economic advantages that could pay for cancer research that would make future genera-

This discussion has just begun to open up the lines of argument concerning the viability of a libertarian theory of intergenerational justice. I hope to have shown that intergenerational relations pose problems for theories that rely on contractual solutions to the coordination of social relationships. We cannot contract with unborn future generations, and hence their interests must be represented in some other way.

### *C. Utilitarian Theories of Distributive Justice*

Our third family of theories is utilitarian. I begin with the general idea of a utilitarian theory, and then proceed to a particular example, average preference-satisfaction act utilitarianism. Finally, I will consider the implications of this theory for intergenerational ethics.

#### 1. The general idea of utilitarianism

The general idea of utilitarianism is that the right decision is the one that produces the greatest good or utility.<sup>75</sup> Utilitarian theories are consequentialist. In their pure form, utilitarian theories count only consequences in determining the rightness of action. Although a consequentialist theory might give weight to the distribution of goods, standard versions of utilitarianism do not consider or give independent consideration to the distributions of utility. This does not mean that distribution is irrelevant to a utilitarian. For example, utilitarians might argue for an egalitarian distribution of wealth on the ground that wealth has a declining marginal utility, and hence that an equal distribution of wealth will tend to produce the greatest utility, all else being equal. However, if all other things are not equal, then a utilitarian theory could require inequality, even gross inequality. Thus, if (hypothetically) enslaving a small percentage of

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tions better off. Suppose one group of proxies wishes to strike the bargain but another group opposes it. How do we resolve such conflicts without government?

75. My treatment of utilitarianism does not discuss one very important issue, cardinal versus ordinal measurement of utility. An ordinal-utility function yields only a rank ordering of various states. A cardinal-utility function assigns a value. I shall assume cardinal utilities. In addition, I elide the problem of interpersonal comparisons of utility. I shall simply assume that interpersonal utility comparisons are possible.

the population would produce the greatest sum of happiness, standard utilitarian theories would authorize the enslavement. This feature of utilitarianism might lead one to conclude that utilitarianism is not concerned with distributive justice at all, since it is the sum (or average) that counts and not how it is distributed. There is, however, a sense in which utilitarianism is a view about distributive justice. The utility of each person counts no more and no less than the utility of any other person. In this sense, utilitarianism counts each person as one and no person as more than one.

The general formulation of utilitarianism (the right decision is the one that produces the greatest good) is ambiguous. At least three questions need to be answered before we have a particular utilitarian theory. First, what is good or utility? Second, what unit of decision is to be evaluated? Third, shall we seek to maximize the sum of utility or the average level of utility? Historically, Jeremy Bentham and John Stuart Mill have formulated the most important utilitarian theories, but at this stage we shall focus on the options that are open to utilitarian theorists rather than on any particular utilitarian theory.

The first question a utilitarian must face is: What is utility? Or put differently: What is the good that ought be maximized? Is it pleasure, happiness, preference-satisfaction, interests, or something else? Corresponding to each possible answer to this question is a variety of utilitarianism. Thus, eudaimonistic<sup>76</sup> utilitarianism takes as its maximand happiness. The view that we ought to maximize the satisfaction of preferences could be called preference-satisfaction utilitarianism. The view that pleasures are good and pains evil could be called hedonistic utilitarianism. We might call the view that objective interests are the good, welfare utilitarianism.<sup>77</sup>

The second question is what unit of decision shall be evaluated for its impact on utility. There are several logical possibilities, but the two most important are acts and rules. Act utilitarianism takes the individual action as the morally relevant unit. Thus, "act so that your action produces the best consequences of all the available

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76. Eudaimonia is the classical Greek word standardly translated as happiness. See WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 783 (1986).

77. See ROBERT E. GOODIN, UTILITARIANISM AS A PUBLIC PHILOSOPHY 3, 13 (1995).

actions" is an act utilitarian principle.<sup>78</sup> For example, if in a particular case, breaking your promise produces greater utility than keeping it, then act utilitarianism requires you to break your promise. Rule utilitarianism takes general rules as the morally relevant unit. Thus, "act so that your action is in conformity with the set of moral rules that maximizes utility as compared to other possible rule sets" is a rule-utilitarian principle.<sup>79</sup> Even if breaking my promise might do good in this case, it is possible that the utility maximizing set of rules would require me to keep my promise.

The third question is whether we seek to maximize the total sum of utilities or the average level of utility. This third question is particularly important when considering intergenerational justice, because decisions made by current generations can affect the size of future generations. Thus, population policy in this generation might result in a larger population with a lower average level of happiness or in a smaller population with a higher average level of happiness.

## 2. Average preference-satisfaction act utilitarianism

Let us pick a set of answers to the three questions. First, let us assume that we seek to maximize the satisfaction of preferences. The notion of utility deployed by economists is usually that of preference satisfaction, and economic analysis of policy is both common and influential. Second, let us assume that we assess individual actions and not rule sets. Act utilitarianism is truly consequentialist, whereas rule utilitarianism may not be.<sup>80</sup> For this reason, act utilitarianism provides a clearer comparison with nonconsequentialist theories of justice, i.e., with egalitarian and libertarian theories. Third, let us assume that average rather than total utilities should be maximized. Actually, this third assumption is only provisional, as

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78. See generally DAVID LYONS, *FORMS AND LIMITS OF UTILITARIANISM* 119-60 (1965) (discussing forms of utilitarianism).

79. See generally GOODIN, *supra* note 77, at 14-23 (discussing principles of maximizing utility).

80. A host of difficult issues are avoided by the statement in the text. Rule utilitarianism is sometimes called a deontological theory, because it may suggest that an action is right, even though that action will lead to worse consequences. Moreover, there is a philosophical dispute over the question whether act utilitarianism and rule utilitarianism are really different views. See *id.* at 9-17.



we shall have more to say about this issue in due course. The resulting theory could be called, somewhat awkwardly, average preference-satisfaction act utilitarianism.

Application of average preference-satisfaction act utilitarianism to a particular choice situation involves a three-step process. First, we identify the possible alternative actions that are open to us. Second, we assess the consequences of each action,<sup>81</sup> determining what average level of preference-satisfaction (utility) would result if each action were chosen.<sup>82</sup> If consequences are uncertain, the utility associated with the consequence is discounted by the probability of its occurrence; such discounted utility values are called "expected utilities." Third, we choose the action that produces the highest expected average utility value.

### 3. Utilitarianism and intergenerational justice

How then would utilitarianism handle questions of intergenerational justice? We shall approach this question by using average preference-satisfaction act utilitarianism as an initial focus, exploring the implications of alternative utilitarian theories by way of comparison.

#### *a. the assumption of time neutrality*

Let's begin with the assumption that utilitarianism is time neutral. Consider a choice situation in which there are two and only two alternative courses of action,  $A^1$  and  $A^2$ . Assume that both  $A^1$  and  $A^2$  will produce the same level of expected utility ( $U$ ), which we might specify as a numerical value,  $U(A^1) = U(A^2) = 100$ .<sup>83</sup> Note that it is the utility values, and not the consequences themselves that are identical. Let us further assume that all of the utility of  $A^1$  will all be

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81. Economists usually focus on the utilities of states of affairs rather than actions. An individual's ( $i$ ) utility function  $U_i$  yields a value for each possible state of affairs. Actions determine which of the possible states of affairs will become actual.

82. Average utilitarianism takes the total sum of utility and divides by the number of persons. See THEORY OF JUSTICE, *supra* note 24, at 139-41. Classical (or total sum) utilitarians will calculate the total sum of utilities in step two and select the action with the highest total sum in step three. See *id.*

83. By  $U(A^1)$ , I refer to the utility value of action one. By  $U(A^2)$ , I refer to the utility value of action two.

accrued at  $T^1$  which is one year in the future and that all of the utility of  $A^2$  will all be accrued at  $T^2$  which is ten years in the future. Given these assumptions, utilitarianism is neutral between  $A^1$  and  $A^2$ ; that is, neither action is preferred to the other. The assumption of time neutrality can be stated somewhat differently: the time at which a utility is accrued does not affect its value directly.

This is not to say that a utilitarian believes that time cannot indirectly influence utility. There are two primary ways that time might affect utility values. First, as a rule of thumb, the greater the time between an action and a consequence, the greater is the uncertainty about the consequence.<sup>84</sup> In general, our predictions about consequences that will occur in a minute or an hour are made with greater confidence than predictions about consequences that will occur in a century or a millennium. Of course, this is only a rule of thumb. Some immediate consequences involve low probabilities. For example, the likelihood that a lottery bet will pay off might be very low, even though the drawing is only a few minutes away. Some long-term consequences are known with virtual certainty. For example, if a large asteroid were to destroy all life on earth today, we would have a high degree of confidence that a thousand years from now, there would still be no more human life.<sup>85</sup>

A second way in which time regularly affects utility values is connected with the idea of an opportunity cost. In our simple choice situation, we assumed that  $A^1$  and  $A^2$  were mutually exclusive alternatives. If we choose  $A^1$  we lose the opportunity to choose  $A^2$ . More generally, whenever we choose to expend resources now to accrue a benefit in the future, utilitarianism requires us to compare that benefit with the benefit that would accrue if the resources were invested and the accrued principal and interest were spent at some future

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84. See *THEORY OF JUSTICE*, *supra* note 24, at 259-62.

85. Another complication is added by risk aversion. Even if the expected value of a far future event is equivalent to the expected value of a near future event, the far future event may involve greater risk. Take a simple case. Assume that I have a choice between a payment of \$100 today or a lottery that gives me a one in ten chance of a payment of \$1000 (indexed for inflation and the average rate of real return on investment). Even if my utility function is neutral between present and future payments, I may prefer the certain present payment to the riskier future payment. Such a preference for certainty is called risk aversion.

time.<sup>86</sup> In general, the longer the period of time, the greater the resources yielded by investment, and hence the greater the opportunity costs. So when we talk about money payoffs rather than utilities, it is almost always prudent to prefer \$100 today to \$100 one year from today: \$100 today can be safely invested to return \$105 tomorrow.<sup>87</sup>

Thus, uncertainty and opportunity costs are two distinct time-related factors. These factors provide *ceteris paribus* reasons to believe that certain present benefits are to be preferred to seemingly similar future benefits.<sup>88</sup> Notice, however, that the comparison of  $A^1$  and  $A^2$  in the example given above accounts for both uncertainty and opportunity costs. When we assumed that  $U(A^1) = U(A^2)$ , we were assuming that their expected utilities were equivalent; in other words, they are equivalent after taking uncertainty into account by discounting for probabilities. Moreover, we assumed that  $A^1$  and  $A^2$  were mutually exclusive and exhaustive alternatives; that is, forgoing  $U(A^1)$  is the only opportunity cost of taking action  $A^2$ , and forgoing  $U(A^2)$  is the only opportunity cost of taking action  $A^1$ . When we say that utilitarianism is time neutral, we mean that it affords time no significance other than utility affecting factors such as uncertainty and opportunity costs.

### *b. time dependent preferences*

There is yet another way in which time affects utility values for preference-satisfaction utilitarians.<sup>89</sup> Some agents may prefer utilities to be accrued at particular times. We sometimes prefer that events occur at one time rather than another. For preference-satisfaction utilitarians, utility is just a function of preference, and therefore, time-based preferences count as much as do any others.<sup>90</sup> It is likely the case that most people usually prefer consumption (or other states of affairs) in the near term to the same consumption in

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86. See THEORY OF JUSTICE, *supra* note 24, at 251-58.

87. This too is only a rule of thumb. If I know that \$100 today will be stolen or that I will spend it on alcohol because I am suffering a temporary depression, it might well be prudent to prefer \$100 a year from now.

88. See LYONS, *supra* note 78, at 47-50.

89. See GOODIN, *supra* note 77, at 13-18.

90. See *id.*

the future.<sup>91</sup> In other cases, however, individuals will prefer events to occur in the future. I might derive utility from my child's marriage, but it is likely that I will prefer that event to occur when my child is 26 rather than 16.<sup>92</sup>

*c. presentism and eternalism*

Let us consider yet another way in which preferences themselves are time relative. Preferences change in individuals over time. Although the current time-slice of me may prefer to get a new car this year rather than next, the time-slice of me that exists next year may well regret such a decision and prefer a state of affairs in which I defer the purchase. Preferences change over time in another, more obvious way. The set of individuals changes over time; indeed, with over six billion humans, it likely changes from second to second and certainly changes from minute to minute.

Preference-satisfaction utilitarianism must decide which preferences to count.<sup>93</sup> There are at least two dimensions of this decision. First, preference-satisfaction utilitarians must decide which persons are to count: currently existing persons, past persons, and/or future persons.<sup>94</sup> Second, which preferences of the relevant set of persons are to count: their preferences at a particular time-slice, or all of their preferences over a lifetime.<sup>95</sup>

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91. Measuring this sort of time preference is difficult, because stated preferences for present over future consumption may in fact reflect discounting for the increased uncertainty that usually accompanies future events. *See* THEORY OF JUSTICE, *supra* note 24, at 252-62. Thus, even if I view all time-slices of my life as equally valuable, I may say that I prefer a desirable event today to the same event in a year, because I am discounting for the possibility that in the interim, I will die or my preferences will change or something else will alter the utility value of the event. Because these background possibilities always exist, we do not expect them to be included in the descriptions of alternative choices. For this reason, data that is based on surveys, interviews, questions, or actual behavior is not a reliable guide to pure preferences for time.

92. This is a feature of preference-satisfaction utilitarianism but is not a feature of all forms of utilitarianism. *See id.* For example, hedonistic utilitarianism would not take the time at which a pleasure occurs to be relevant to its utility. *See id.* at 13.

93. *See id.* at 13-18.

94. *See id.*

95. *See id.*

Given these two dimensions, there are many possible permutations. Consider the following two possibilities. First, we might count only the preferences of persons who exist at the time actions are to be chosen, and consider their preferences, as they exist at that moment. Call this version of preference-satisfaction utilitarianism, "presentism."<sup>96</sup> For the presentist, the moment of choice is privileged. Future persons and future preferences of current persons simply do not count.<sup>97</sup>

Second, we might consider all preferences of all past, current, and future persons and take into account all time-slices of those individuals. Call this version, "eternalism."<sup>98</sup> Eternalists look at every choice from what might be called a "God's eye point of view," a perspective that is out of space and time. For the eternalist, all persons are equal, irrespective of the time at which they were born. Moreover, all time-slices of persons are equal.

As I have presented them, presentism and eternalism are species of preference-satisfaction utilitarianism. This is because preferences are volatile; they can change from moment to moment, and hence each time-slice of an individual is potentially a different preference set, yielding a different utility function for alternative states of affairs. Other forms of utilitarianism do not have this feature. Eudaimonistic utilitarianism takes happiness as the good to be maximized. If we follow Aristotle and conclude that happiness must be evaluated over a whole lifetime,<sup>99</sup> then time-slices are irrelevant. Consequently, a eudaimonistic presentist utilitarian would count only currently existing persons but would look at the impact of alternative choices over the whole lives of those persons. A eudaimonistic eternalist utilitarian would count the happiness of all persons, present and future. Similarly, pleasures and pains can be measured at particular moments, but the intensity of a pleasure or pain is not itself time bound in the same way that preferences are. Once a pleasure or

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96. I use the term "presentism" to reflect this view's bias toward the present moment.

97. Of course, preferences that are now future preferences do count if the choice is made at a future time.

98. I use the term "eternalism" to reflect the idea that this version of preference satisfaction counts all preferences throughout eternity.

99. See ARISTOTLE, *supra* note 20, at \*1097b22-1100a34.

pain has occurred, its hedonic value is set. Therefore, hedonic values can be summed (or averaged) over a life, and hence, persons rather than time-slices of persons are the natural accounting unit.

The choice between presentism and eternalism has enormous implications for intergenerational justice. For presentists, unborn future generations (UFGs) count only insofar as their interests are internalized in the preferences of currently existing persons (or even present time-slices of currently existing persons). For eternalists, the expected utilities of UFGs count equally with the expected utilities of currently existing persons. If it were the case that no one alive today cares much for what happens in the far distant future,<sup>100</sup> then far distant UFGs do not count at all. On this assumption, even the slightest utility gain today would justify inflicting the most horrible suffering upon billions in a far distant UFG.

The choice between presentism and eternalism may also affect the way that utilitarianism treats deceased former generations (DFGs). Deceased former persons had preferences about events that have occurred or will occur after the moment of their death. The case of *entailed estates* provides a familiar example of such preferences. Eternalist preference-satisfaction utilitarianism can count these preferences.<sup>101</sup> It is a feature of preferences that they can be satisfied by events that occur after one is dead. Most other forms of utilitarianism do not share this feature. There may be some room for dispute, but the conventional view would be that one's happiness could not be affected by the course of events after one's death.<sup>102</sup> Similarly, pleasures and pains all accrue during one's lifetime. Something that occurs after my death cannot give me pleasure or

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100. This is not likely the case, since some people do care very much about the distant future.

101. It does not seem necessary that a preference-satisfaction eternalist count the preferences of deceased former persons. It would be possible to be a forward-looking eternalist, who counted on the preferences of persons still alive and persons yet to come.

102. My happiness may be affected by my beliefs about what will happen after my death. It may make me happy to know that I have provided for the financial security of my children. Once I am dead, a subsequent unanticipated event cannot destroy this happiness—at least absent assumptions about life after death.

pain.<sup>103</sup> Eternalists who adopt the eudaimonistic or hedonistic versions of utilitarianism do not need to take into account DFGs when calculating the utility of an action in the present.

*d. classical and average utilitarianism*

For the sake of convenience, I have assumed up to this point that utilitarians count the average level of utility rather than the total. This is, in fact, an important debate within utilitarian theory, and one that bears directly on questions of intergenerational justice.<sup>104</sup> The significance of the choice between using total and average utility is paradigmatically illustrated by the case of *population policy*. Recall that this case involves a choice between a pro-growth policy and a population-control policy. Pro-growth yields a larger population, with lower average utility levels; population control yields a smaller population, with higher average utility levels. The choice between total and average utilitarianism may well determine which of the two policies is just or morally correct.

Advocates and opponents of each form of utilitarianism can point to hypothetical situations in which one of the two views yields counterintuitive results. One such hypothetical involves a very large population with the vast majority of persons living impoverished lives at bare subsistence levels. Imagine that a population control policy could reduce the size of the population over time, yielding a smaller population of affluent persons who live much more rewarding lives. Total utilitarianism may forbid population control, even though it may seem morally attractive. Consider now the situation of this smaller population. Suppose that the average could be marginally improved by drastically reducing population size, leaving a small but sustainable population group who live under conditions of great material abundance and satisfaction. This result seems counterintuitive, but would be required by average utilitarianism.<sup>105</sup>

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103. As in the case of happiness, beliefs about events that will occur after my death may cause me pleasure or pain.

104. See THEORY OF JUSTICE, *supra* note 24.

105. Utilitarianism might be reformulated to avoid this problem. Critical level utilitarianism is in a sense a hybrid view. It adopts average utilitarianism as the criterion for choice up to a critical level of utility, but then adopts total utility as the criterion above that level. Different forms of this theory could

This concludes our very brief survey of theories of distributive justice. We have identified three families of theories, egalitarian, libertarian, and utilitarian, and three particular instantiations of these families, justice as fairness, the structure of liberty, and average preference-satisfaction act utilitarianism. We now turn our attention to questions of justification.

#### IV. METHODS OF JUSTIFICATION

Problems of intergenerational justice create difficulties for theories of distributive justice. As we have already seen, application of a theory of distributive justice in the intergenerational context is likely to expose ambiguities or gaps in the theory or to reveal contexts in which a theory would lead to counterintuitive results. For this reason, we may need to explore the foundations of such theories. Three foundational strategies will be explored here. The first strategy is the social contract, familiar from the work of Hobbes,<sup>106</sup> Rousseau,<sup>107</sup> and Locke.<sup>108</sup> The second strategy is the original position, associated with the work of John Rawls.<sup>109</sup> The third strategy, also associated with Rawls, is the idea of reflective equilibrium.<sup>110</sup>

Before we explore these three alternatives, we need to consider another possibility. Sometimes we aim to justify our beliefs on the model of geometry.<sup>111</sup> We begin with premises that we know or have good enough reasons to believe are true. Perhaps these premises are self-evident; perhaps we all agree they are true. From these secure starting points or axioms, we move via sound deductive arguments to other conclusions or theorems. This method has not met with much success in political or moral philosophy. The set of

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adopt different values for the critical level of utility. See Charles Blackorby, Walter Bossert & David Donaldson, *Critical-Level Utilitarianism and the Population-Ethics Dilemma* (Feb. 1997), at <http://www.econ.ubc.ca/dp9706.pdf>.

106. THOMAS HOBBS, *LEVIATHAN* 223 (Crawford Brough Macpherson ed., 1968) (1651).

107. JEAN JACQUES ROUSSEAU, *The Social Contract*, in *SOCIAL CONTRACT AND DISCOURSES* 163, 173-75 (G.D.H. Cole trans., Everyman's Libr. ed., 1973).

108. See LOCKE, *supra* note 60.

109. See THEORY OF JUSTICE, *supra* note 24, at 304-10.

110. See *id.* at 18-19.

111. See HOBBS, *supra* note 106, at 17-18.



premises that everyone can accept as true does not yield a robust moral or political theory. Premises that yield robust conclusions are controversial. Hence, we find a need for alternative strategies of justification.

### A. *The Social Contract*

The most famous such strategy is the social contract.<sup>112</sup> We begin with the idea of a state of nature, a condition without government or social authority. We then ask under what conditions or terms persons in such a state would be willing to form a contract that establishes a government.<sup>113</sup> The content of the social contract is justified by the unanimous consent that would be obtained in a state of nature.<sup>114</sup>

I am considering the social contract as a justificatory strategy. Depending on the way the state of nature and process of contracting is described, the content of the contract will vary. Thus, social contract approaches might be used to justify egalitarian, libertarian, and utilitarian views about justice. Thus, Hobbes used the social contract to justify an absolute sovereign,<sup>115</sup> whereas Locke adopted the same justificatory strategy to argue for limited government and the protection of property.<sup>116</sup>

The justificatory force of social-contract theories might be thought to rest in the notion of consent or agreement. Actual consent or agreement is widely thought to have justificatory force, although different moral theories may explain that force differently.<sup>117</sup> Social-contract theories cannot rely on actual consent, because there is no

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112. See THEORY OF JUSTICE, *supra* note 24, at 10.

113. The contract might be with one another or it might be with the government.

114. See THEORY OF JUSTICE, *supra* note 24, at 10-11.

115. See generally HOBBS, *supra* note 106 (presenting Hobbes's views supporting the King over Parliament).

116. See generally LOCKE, *supra* note 60 (stating that, although Locke supports a state of nature, he was willing to give up the limited power needed to restrain occasional transgressors).

117. A liberal moral theory might explain the justificatory power of consent by appealing to the value of autonomy. A utilitarian theory might argue that consent is evidence that the agreement manifests the agent's preferences. See THEORY OF JUSTICE, *supra* note 24, at 400-20.

actual social contract. We did not actually enter society via a social contract, and neither did our ancestors. Social contracts involve hypothetical consent. If social-contracts arguments have justificatory force, it is because hypothetical agreements that would be reached under specified conditions that are in some sense fair or appropriate.

Once we turn our attention to intergenerational justice, the hypothetical nature of social contracts becomes even more apparent. One might try to argue that in actual societies there has been some form of tacit consent to a social contract, but this strategy is obviously unavailing when it comes to an intergenerational social contract. Unborn future generations cannot agree to a social contract with current and past generations, either explicitly or tacitly. Time travel is science fiction, and the impossibility of contracting with distant generations is a fact of nature.

Nonetheless, we can engage in a thought experiment and imagine a hypothetical social contract among generations. Some difficulties immediately come to the fore. What is the equivalent of the state of nature in an intergenerational social contract? Social contract theories assume that the transition from state of nature to civil society occurs in time and is made against the background of the laws of science.<sup>118</sup> The state of nature in an intergenerational social contract cannot proceed in this way. Instead, we imagine that all of the generations exist without an agreement between generations that specifies intergenerational obligations. After the agreement, all generations become bound by the contract. It is not a matter of before and after, but of alternative universes or possible worlds.

Most social contract theories imagine that the agreement produces a state of civil society in which there is a central authority or government<sup>119</sup> that solves the problems of the state of nature. We might continue with the science fiction, and assume an intertemporal government that coordinates between distant generations, but this would seem to dramatically change the way in which social contract arguments have justificatory force. In conventional social contract

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118. See generally LOCKE, *supra* note 60 (explaining the transition of society from a state of nature to a civil society).

119. Not all social contract theories yield the conclusion that government is justified. See NARVESON, *supra* note 62, at 217-21; NOZICK, *supra* note 62, at 26-28, 88-119.

theories, actual or obtainable governments with real benefits are justified to actual people by a hypothetical contract.<sup>120</sup> In the intergenerational contract, any benefits that depend on a central enforcing authority cannot be obtained. Put another way, we can never move out of the intertemporal state of nature. Nonetheless, we could simply proceed with the thought experiment and either posit a hypothetical intertemporal civil society or more simply, assume that the parties to the intergenerational contract will all comply with its terms voluntarily.

There is yet another difficulty with an intergenerational state of nature. Who are the contracting parties? The answer that would most closely parallel classical social contract theory is all persons in all generations, but this answer will not do. The content of the intergenerational social contract will affect which persons will come into being and which will not. We could seek agreement among all possible persons, but that strategy seems obviously doomed. Who would consent to their own nonexistence? Given that no intergenerational social contract will result in all possible persons existing, it would seem that hypothetical unanimous agreement is impossible.

Perhaps the generations themselves are the contracting parties, but this also poses intractable difficulties. Let's assume that an intergenerational social contract would improve the lot of some generations but leave others worse off. For example, assume that the intergenerational contract would require savings by some early generations and that in the intergenerational state of nature, these early generations would not save. Why would the early generations consent? In addition, it is conceivable that the content of the intergenerational social contract will determine whether some generations will even exist. Without an intergenerational contract, resources might be exhausted earlier or later than they would be exhausted with such a contract.<sup>121</sup> Requiring agreement among all possible

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120. Social contract theories can justify the status quo or be used to argue for a change in regime. Either way, the benefits of the contract are either already present or are obtainable (although perhaps only after radical social change or revolution).

121. Earlier exhaustion might occur if resources are consumed at a higher rate in the intergenerational state of nature, leaving nothing at the end. Later exhaustion might occur because very early generations might not save, delay-

generations may be impossible or it may yield counterintuitive results.

I do not claim to have shown that an intergenerational social contract theory cannot get off the ground, but I do hope that I have shown there are difficulties with this strategy. Moreover, there are a number of well-known difficulties with classical single-generation social contract theories. There is reason, therefore, to consider the alternative justificatory strategies.

### B. *The Original Position*

One alternative to the social contract is the "original position," which features prominently in justice as fairness, but has also been used by other theorists in ways that yield quite different conclusions.<sup>122</sup> The original position begins by stating that fair terms of social cooperation are those that would be agreed to by all citizens under terms that are fair to all.<sup>123</sup> In order for the conditions under which the agreement is to be reached to be fair, there must be no unfair bargaining advantages, coercion, or fraud.<sup>124</sup> The original position is a hypothetical choice situation that is laid out or described in such a way that it provides fair conditions under which agreement can be reached.

The primary feature which insures the fairness of the original position is the "veil of ignorance."<sup>125</sup> Rawls thinks of the parties to the original positions as representatives of citizens, regarded as free and equal persons.<sup>126</sup> The representatives in the original position are placed behind a veil of ignorance that prevents them from knowing the following facts about the persons they represent:

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ing the development of resource consuming technology. In other words, in an intergenerational state of nature, the Stone Age might last significantly longer, postponing the industrial age and hence postponing the exhaustion of the earth's resources. Many other scenarios can be imagined, with different effects on which generation is the last.

122. For authors that anticipate some features of the original position, see John C. Harsanyi, *Cardinal Utility in Welfare Economics and in the Theory of Risk-Taking*, 61 J. POL. ECON. 434, 435 (1953), and William Vickrey, *Measuring Marginal Utility by Reactions to Risk*, 13 ECONOMETRICA 319, 329 (1945).

123. See JUSTICE AS FAIRNESS, *supra* note 31, at 15.

124. See *id.*

125. *Id.*

126. See *id.* at 14.

- their social positions (for example their income, wealth, or position);
- their religious or philosophical beliefs (comprehensive doctrines);
- their race, ethnicity, or gender;
- their native endowments, such as strength or intelligence;<sup>127</sup>
- the generation to which they belong.<sup>128</sup>

Rawls acknowledges that the hypothetical agreement that would be reached in the original position is not binding on the basis of consent.<sup>129</sup> Rather, the original position is a thought experiment that models (1) the fair conditions under which citizens could agree as free and equal persons and (2) the limits on the sorts of reasons that can serve as the basis for accepting or rejecting the terms of agreement.<sup>130</sup> In other words, the original position is a thought experiment designed to model our convictions about what the conditions under which free and equal persons fairly could agree on the terms of social cooperation.

Of course, the laying out of the original position, i.e., the specification of the conditions that characterize the position, will determine which principles of justice are chosen. This laying out is not done arbitrarily; rather the selection of the conditions constituting the original position is constrained and justified in two ways. First, the conditions of the original position must be specified in a way that reflects shared beliefs about the freedom and equality of citizens. Second, a particular specification of the original position can be tested by assessing the principles of justice that would be chosen in that situation against our considered judgments about justice, both as applied to particular cases and at a relatively general or abstract level. This second constraint is further developed in the idea of reflective equilibrium, which is explored below.

At this point, we can consider the application of the idea of the original position to the problem of intergenerational justice. I will quote in full Rawls's description of the features of the original position that lead to the adoption of the just savings principle:

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127. *See id.* at 15.

128. *See id.* at 160.

129. *See id.* at 16-17.

130. *See id.* at 17.

As for the adoption of a just savings principle, we proceed as follows. To preserve the present-time-of-entry interpretation of the original position<sup>131</sup> . . . the question of savings must be dealt with by constraints that hold between citizens as contemporaries. Since society is to be a fair system of cooperation between generations over time, a principle governing savings is required. We must not imagine a (hypothetical and nonhistorical) direct agreement between all generations, so we say the parties are to agree to a savings principle subject to the condition that they must want all previous generations to have followed it. They are to ask themselves how much (what fraction of the social product) they are prepared to save at each level of wealth as society advances, should all previous generations have followed the same schedule.

The correct principle, then, is one the members of any generation (and so all generations) would adopt as the principle they would want preceding generations to have followed, no matter how far back in time. Since no generation knows its place among the generations, this implies that all later generations, including the present one, are to follow it. In this way we arrive at a savings principle that grounds our duties to other generations: it supports legitimate complaints against our predecessors and legitimate expectations about our successors.<sup>132</sup>

The original position, as Rawls observes, is closely related to the idea of a social contract. It is a more general and abstract formulation of the social contract's notion of hypothetical unanimous agreement in a state of nature. Because the original position is more abstract and general, it avoids the many problems that social contract theory faces when applied to intergenerational justice. The original position requires no intertemporal agreement or enforcement agency;

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131. This is the notion that anyone can enter the original position at any time, simply by reasoning in accord with the constraints of the original position. *See id.* at 86.

132. *Id.* at 160.

the veil of ignorance allows early generations to agree with later ones.

### *C. Reflective Equilibrium*

We now consider a third and final method for justifying theories of distributive justice, the method of reflective equilibrium. Rawls introduces this method as a means for justifying the original position:

In searching for the most favored description of this situation we work from both ends. We begin by describing it so that it represents generally shared and preferably weak conditions. We then see if these conditions are strong enough to yield a significant set of principles. If not, we look for further premises equally reasonable. But if so, and these principles match our considered convictions of justice, then so far well and good. But presumably there will be discrepancies. In this case we have a choice. We can either modify the account of the initial situation or we can revise our existing judgments, for even the judgments we take provisionally as fixed points are liable to revision. By going back and forth, sometimes altering the conditions of the contractual circumstances, at others withdrawing our judgments and conforming them to principal, I assume that eventually we shall find a description of the initial situation that both expresses reasonable conditions and yields principles which match our considered judgments duly pruned and adjusted. This state of affairs I refer to as reflective equilibrium.<sup>133</sup>

Although Rawls deploys the idea of reflective equilibrium within his theory and in connection with the original position, we can consider this idea apart from that context. Thus, we might consider various theories of intergenerational justice by asking whether the principles the theories yield cohere with our considered judgments about general principles and particular cases. We would seek the theory that expresses reasonable general and abstract beliefs about

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133. THEORY OF JUSTICE, *supra* note 24, at 18; *see also* POLITICAL LIBERALISM, *supra* note 30, at 8 (discussing reflective equilibrium).

intergenerational justice and that yields results for particular problems of intergenerational justice that match our considered judgments.

#### V. A WORD ABOUT THE RELATIONSHIP OF ETHICAL AND MORAL THEORY TO POLITICAL MORALITY AND DISTRIBUTIVE JUSTICE

Up to this point, we have focused almost entirely on political philosophy and have had little to say about interpersonal ethics or morality. The focus on the political reflects a provisional assumption that the most important issues of intergenerational ethics involve justice and political morality. At this point, however, we shall relax that assumption and consider interpersonal morality of intergenerational relationships.

As we did with distributive justice, let us begin with a quick survey of the available theories. We shall begin with utilitarianism, which can be both a comprehensive moral doctrine and a theory of distributive justice. We will then examine deontological ethics, using Kant's theory as an example. Finally, we will look at virtue ethics. As we examine each theory, we will briefly explore its implications for intergenerational ethics.

##### *A. Utilitarianism*

We have already examined utilitarianism as a political philosophy. Utilitarians may believe that utilitarianism is a comprehensive moral theory, that utility should be used as the guide to individual moral choice. Once again we need to specify a form of utilitarianism.

Notice, however, that it is difficult to deploy preference-satisfaction utilitarianism as one's guiding philosophy for making individual choices. Preference-satisfaction utilitarianism takes preferences as an exogenous variable. Translation: we take each individual's preferences as a given. But when we ask ourselves how we ought to act as individuals, we usually think of ourselves as asking in part, "What preferences ought I to have?" Take the commandment, "Thou shalt not covet thy neighbor's wife." The commandment is directed to our preferences; it says that one should not have a certain sort of preference. Similar moral prohibitions apply to even less savory preferences; one ought not to like torturing other persons. If



preference-satisfaction utilitarianism were true, then these moral injunctions would involve a category mistake.<sup>134</sup> Not all forms of utilitarianism share this problem. If utility is objective happiness or object-interest satisfaction, then preferences can be judged for their utility and preference-change decisions can be made in a utilitarian way.

Whichever form of utilitarianism we adopt, it would seem to admirably perform one of the roles of a moral theory: It gives us, in theory at least, an answer to every moral question. Should I care for my child? In the normal case, "yes," because that will be utility enhancing, but in some exceptional cases, "no," because I can do something more valuable with my efforts. Should I leave my fortune to my child? In the normal case, "no." I might have a strong preference to do so, because of my deep love for my child, but it will usually be the case that even higher levels of utility can be obtained by donating my fortune to Oxfam and feeding desperate persons abroad. Should I have a child at all? Perhaps the answer is no, because I could devote my energies as a volunteer for and donor to Oxfam.

This pattern of reasoning reveals an important feature of utilitarianism. Utilitarianism does not have built-in agent-centered duties or permissions. I do not have special duties to help my child, except insofar as my doing it will produce greater utility. Of course, in the usual case, parents are best situated to care and feed for their children, because parents prefer to do this, because parents can do it at a lower cost than others, and because children derive greater benefits from parental care than care in orphanages or foster homes. But these factual regularities are not iron laws. If it just so happens that I can produce a huge utility benefit by abandoning my child, then I should do it. Perhaps Paul Gauguin was right to abandon his family, since he produced art that has given enjoyment to so many people and he seemed to satisfy a variety of his own preferences while painting in Tahiti.

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134. Of course, the preference-satisfaction utilitarian can consistently say that one ought not act on such preferences, because acting on them will cause a net loss of utility.

*B. Deontology*

We can compare consequentialist theories like utilitarianism with deontological theories such as those of Kant. Let us begin with the general idea of deontological moral theory. Deontological theories emphasize moral duties or obligations as well as moral rights or permissions.<sup>135</sup> Deontologists may believe that certain acts are wrong in themselves. For example, one might believe that the killing of innocents is wrong. Deontologists may also believe that an action which violates a duty cannot be morally justified by the good consequences it produces. For example, a deontologist might believe that it is wrong to kill an innocent person in order to achieve some greater good.

Kant's theory of the categorical imperative is taken as a standard example of a deontological theory. Attempting to summarize the theory in a paragraph would be futile, but we can note the very general idea of his theory. Kant argues that hypothetical imperatives (aims, desires, or preferences) cannot be moral principles, because morality is universal and sometimes conflicts with self-interest.<sup>136</sup> Therefore, morality must be based on a categorical imperative, that is, on a command that does not depend on a particular aim, desire, or preference for its content. Such a command needs to be universal, because moral principles are universal and it must have the form of a law or command. One way to express such a universal moral law would be the following: act so that the maxim of your action<sup>137</sup> could be willed as a universal law of nature. Roughly speaking, act on the basis of principles that you would want everyone else to act upon.

I will not attempt to engage in Kantian casuistry, attempting to divine the answers that Kant himself would give to various issues of intergenerational ethics. The following sorts of answers are Kantian in spirit. In the cases of *care and feeding* and *nursing the elderly*, a Kantian might find a duty to care for one's parents and children, based on the idea that one could not will that one's own parents or

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135. See PEFFER, *supra* note 34, at 83.

136. See *id.* at 184.

137. By the maxim of your action, Kant means the principle on the basis of which you act. See THEORY OF JUSTICE, *supra* note 24, at 222-23.

children would fail to give care if care was needed. In the case of *legacies and bequests*, at least some deontologists would be likely to conclude that one has moral permission to dispose of one's estate as one wishes, and that one is not obligated to leave one's fortune to those who would benefit the most.

### C. *Virtue Ethics*

The third and final moral theory is virtue ethics, a view that historically was associated with Aristotle and that has been revived by a variety of contemporary philosophers. In recent years, there has been a revival of interest in Aristotelian moral theory, and especially in Aristotle's theory of the virtues.<sup>138</sup> For Aristotle, the virtues are acquired dispositional qualities;<sup>139</sup> they are potentialities or powers that are states of character or of mind.<sup>140</sup> Aristotle characterizes the virtues as intellectual or moral,<sup>141</sup> and his views can be sketched by examining these two categories.

The moral virtues are states of character concerned with choice;<sup>142</sup> examples include courage, temperance, and justice.<sup>143</sup> Aristotle thought that each of the moral virtues could be seen as the mean between two opposing vices: thus, courage is a mean between the vices of fear and confidence.<sup>144</sup> Moral virtues, says Aristotle, are acquired as a result of habit; one must act courageously in order to become courageous.<sup>145</sup>

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138. See, e.g., PHILIPPA FOOT, *VIRTUES AND VICES* (1978) (suggesting that "a sound moral philosophy should start from a theory of the virtues and vices"); ALASDAIR MACINTYRE, *AFTER VIRTUE: A STUDY IN MORAL THEORY* (2d ed. 1984) (concluding that a rejection of the "ethos of the distinctively modern and modernizing world . . . will provide us with a rationally and morally defensible standpoint from which to judge and to act").

139. See W.F.R. HARDIE, *ARISTOTLE'S ETHICAL THEORY* 107-08 (2d ed. 1980).

140. See *id.* at 99.

141. See ARISTOTLE, *supra* note 20, at \*1103a6-10.

142. See HARDIE, *supra* note 139, at 116.

143. See *id.* at 118-19.

144. See ARISTOTLE, *supra* note 20, at \*1115a6-7; HARDIE, *supra* note 139, at 118.

145. See ARISTOTLE, *supra* note 20, at \*1103a16-18; HARDIE, *supra* note 139, at 104.

The intellectual virtues are practical and theoretical wisdom. Practical wisdom, or *phronesis*, is excellence in deliberation: the man of practical reason is able to choose good ends and the means to achieve those ends.<sup>146</sup> Practical wisdom operates in the realm of *praxis*: action in particular situations.<sup>147</sup> Theoretical wisdom or *sophia*, on the other hand, operates in the realm of *theoria*; abstract thinking, science, and theory.<sup>148</sup> The intellectual virtues are initially developed and matured by teaching through experience.<sup>149</sup>

The virtues, then, are those characteristics of mind and will that are constitutive of a good life. The person who possesses the virtues, for example, of temperance, courage, and wisdom, will flourish and a society composed of such persons will also flourish. But the person who possesses the corresponding vices, for example of intemperance, cowardice, and stupidity cannot be happy and will not contribute to the happiness of others. Virtue-centered theories characteristically hold that the relationship of virtue and happiness is constitutive rather than instrumental.<sup>150</sup> The virtues are not merely the means to happiness identified by independent criteria; rather, happiness consists of a life lived in accord with the virtues.<sup>151</sup>

One way to understand what is distinctive about virtue ethics is to focus on its naturalism. One of the most influential exponents of virtue ethics has been Philippa Foot. In her most recent work, *Natural Goodness*,<sup>152</sup> she emphasizes the notion that a virtue-centered account of morality can be seen as a naturalistic account. We can see the human virtues or excellences as similar in kind to the natural excellences of other creatures.<sup>153</sup> As Foot puts it, "for all the differences . . . between the evaluation of plants and animals and their parts and characteristics on the one hand, and the moral evaluation of

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146. See ARISTOTLE, *supra* note 20, at \*1140a11-28.

147. See HARDIE, *supra* note 139, at 212 (quoting D.S. ALLAN, *THE PHILOSOPHY OF ARISTOTLE* 182-83 (1952)).

148. See *id.* at 336-57.

149. See ARISTOTLE, *supra* note 20, at \*1103a14; HARDIE, *supra* note 139, at 99.

150. See HARDIE, *supra* note 139, at 19-27.

151. See *id.*

152. PHILIPPA FOOT, *NATURAL GOODNESS* (2001).

153. See *id.* at 15.

humans on the other, we shall find that these evaluations share a basic logical structure and status."<sup>154</sup>

Natural goodness in other creatures depends on the form of life of the species.<sup>155</sup> What counts as excellence in an eagle may be irrelevant to a mouse.<sup>156</sup> A good eagle has an "eagle eye," sharp talons, and strong wings, but mice have no natural need for these qualities. When it comes to humans, the identification of the distinctively human excellences (the virtues) is more difficult.<sup>157</sup> Humans have diverse cultures, occupations, and interests. Foot argues, however, that "for all the diversities of human life, it is possible to give some quite general account . . . of what is . . . needed . . . for human good . . . ."<sup>158</sup> Of course, an account of the form of life that is distinctive to humans will take into account the facts that we are rational and social in nature.<sup>159</sup> What is naturally good for creatures like us? A theory of the virtues is an attempt to answer this question.

Finally, consider a few words about the distinctive nature of a virtue-centered account of morality in comparison to other theories. Aristotle's theory focuses on states of character and mind.<sup>160</sup> In contrast, both a consequentialist theory, like utilitarianism,<sup>161</sup> and a deontological theory, like Kant's,<sup>162</sup> focus on rules for decision; maximize utility or act so that the maxim of your action could be willed as universal law of nature. Virtue-centered theories focus on character rather than action.<sup>163</sup> This naturally leads to the question as to how a virtue-centered theory can guide action. One contemporary answer focuses on two ideas. First, the virtues themselves give guidance to action.<sup>164</sup> When faced with a threat, we can focus on courage. Second, the notion of a virtuous person can be action guiding.<sup>165</sup> When

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154. *Id.* at 27.

155. *See id.* at 26-27.

156. *See id.* at 34-35.

157. *See id.* at 43.

158. *Id.*

159. *See id.*

160. *See* ARISTOTLE, *supra* note 20.

161. *See* Narveson, *supra* note 50, at 63.

162. *See* PEFFER, *supra* note 34, at 83.

163. *See* FOOT, *supra* note 138, at 1-18.

164. *See id.* at 8-14.

165. *See id.* at 1-18.

faced with a difficult choice situation, we may ask how someone we admire for their possession of the virtues would handle the situations.

A virtue-centered approach to problems of intergenerational ethics might begin with the observation that virtues other than justice may have an important role to play. Justice is only one of the moral virtues. Other virtues may come into play when we consider intergenerational ethics. *Care and feeding* and *nursing the elderly* can be analyzed as cases involving justice, but normally we think about these cases as involving other virtues. We want parents to care for their children and children for their parents out of love rather than out of a duty derived from justice. Indeed, what we want is loving care, that is, care motivated by love. Just care (care motivated by a sense of duty) is better than no care at all, but it is hardly a substitute.

Can virtue ethics help with other problems of intergenerational ethics? We might consider the possibility that cases like *persistent plutonium* or *disastrous global warming* are better conceptualized if we bring in virtues other than justice. Perhaps it is simply wrong-headed to think about our relationship with future generations through the lens of duties derived from justice. Isn't it somewhat odd to think about distributive justice between humans who will not live for a thousand years and us (the current generation)? We might begin our approach by thinking about the form of life that is distinctive to humans as a species. Reproduction and continuation of the species is part of that form of life. It is natural for humans to care about the continuation of the species in general and to care about the prospects of their descendents in particular; such caring or beneficence is counted as a human excellence. In complex choice situations, practical wisdom will be required to integrate this virtue with other human excellences. Caring about our species may tug in one direction, while justice might tug in another. A virtue-centered approach might emphasize the need for sensitive appraisal of the situation, and discount the possibility that some formula or decision procedure can dictate a uniquely correct decision.

## VI. SOME CONUNDRUMS OF INTERGENERATIONAL ETHICS

We now have an array of tools for thinking about problems of intergenerational justice. In this Part, I want to explicate three of the classic conundrums of intergenerational ethics. First, I want to draw

out the special problems of uncertainty that are associated with decisions that may affect unborn future generations. Second, I shall discuss the problem of discount rates for utilitarian theories. Third and finally, I wish to investigate the very thorny problems associated with possible future persons. I shall not attempt to solve these conundrums or even make significant progress toward their solution. My aim is merely to map the landscape in a rough and ready way.

*A. The Problem of Decision Making Under  
Conditions of Uncertainty*

Uncertainty is a ubiquitous feature of human choice. We rarely if ever know the consequences of our actions with perfect certainty. "Lightning could strike," we remind ourselves: Even "the best-laid plans of mice and men go oft astray."<sup>166</sup> When we think about unborn future generations in connection with decisions we make today, the problems of uncertainty are of a wholly different order. Lightning could strike before my book arrives from Amazon.com, but the probability is very low and may even be more or less calculable. When we ask what affect our economic and environmental policies may have on unborn future generations, we begin to lose faith in our ability to give even rough estimates of probabilities.

Rational choice theory (or decision theory) attempts to give a formal account of how rational beings can make decisions under a variety of conditions.<sup>167</sup> The basic story is familiar folk psychology; that is, rational choice theory formalizes common-sense assumptions about how people do (and ought to) make choices, at least in some circumstances.<sup>168</sup> Rational choice theory makes some simplifying assumptions, which may prove false in real choice situations, but we

166. The phrase derives from Robert Burns's poem:

The best-laid schemes o' mice an' men  
Gang aft agley,  
An' lea'e us nought but grief an' pain  
For promis'd joy!

ROBERT BURNS, *To a Mouse*, in COMPLETE POETICAL WORKS 31, 32 (1897).

167. For an account of decision theory, see R. DUNCAN LUCE & HOWARD RAIFFA, *GAMES AND DECISIONS* (1957); MICHAEL D. RESNICK, *CHOICES* (1987).

168. See RESNICK, *supra* note 167, at 3.

will leave consideration of those assumptions aside in order to get to the point directly.<sup>169</sup>

Let us distinguish between two different kinds of uncertainty. When we are uncertain about the consequences of our actions but are able to estimate the probabilities of various actions, let us call this kind of uncertainty "risk." When we cannot estimate probabilities, let us call this kind of uncertainty "ignorance."<sup>170</sup>

Under conditions of risk, rational choice theory suggests that we should select the alternative with the highest expected utility<sup>171</sup> (rational choice theory is a close cousin of utilitarian moral theory). We calculate expected utilities by discounting the utility of each possible outcome of a choice by the probability of its occurrence.<sup>172</sup> Why is it rational to calculate expected utilities? One answer to this question is that someone who pursues this strategy over a lifetime of risk-involving choices will fare better than someone who is risk averse or risk preferring.

Consider the application of an expected utility approach to the case of *persistent plutonium*. In any given year, the plutonium may or may not cause a cancer death. Suppose the probability is .05 per year. We would then assign a utility value to a cancer death, and multiply that value by .05. Cost-benefit analysis uses dollar values rather than utilities. So, we might assume that a human life is worth \$500,000.00, which discounted by .05 would be \$25,000.00 per year. Recall that we assumed that this cost would be born for 500,000 years, and therefore, the total cost is \$12,500,000,000.00. We would then subtract this cost (and any other costs) from any benefits of the plutonium reactors, and then compare the net figure to the alternative courses of action that could be taken.

How does rational-choice theory handle problems of ignorance? Consider three possible methods for coping with ignorance:

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169. *See id.*

170. *See generally* Lawrence B. Solum & Stephen Marzen, *Truth and Uncertainty: Legal Control of the Destruction of Evidence*, 36 EMORY L.J. 1085, 1148-60 (1987) (delineating the difference between uncertainty based on risk as when based on ignorance); Lawrence B. Solum, *You Prove It! Why Should I?*, 17 HARV. J.L. & PUB. POL'Y 691, 696-98 (1994) (same).

171. *See* Solum & Marzen, *supra* note 170, at 1151.

172. *See id.*



- *Guess*: for example, assume that each state is equiprobable.
- *Play it safe*: choose the action with the best worst-case outcome.
- *Go for it*: choose the action with the best best-case outcome.

There are many other possible strategies for coping with ignorance, but there is no knockdown argument that any such strategy is more rational than any of the others as a general rule for deciding how to act under conditions of ignorance. Each of the strategies has serious problems.

Consider the applications of this strategy to a problem of intergenerational justice. Suppose that we cannot estimate the probability of certain possible consequences in the case of *disastrous global warming*: for example, we cannot calculate the likelihood that the polar ice caps will melt and flood coastal regions or the probability that climate changes will cause an ecological catastrophe that would result in cascading extinctions and the consequent deaths of billions of persons. We might guess, assuming that there is a .5 chance of total catastrophe. We might play it safe, and avoid any policy choice that could possibly lead to global warming. Or we might optimistically assume that because we cannot estimate the probabilities, we can ignore global warming altogether.

Consider, for example, some of the problems with guessing. Assume that each state that is equiprobable has the advantage of allowing the calculation of expected utilities, but there is a price to be paid. Why is it any more rational to assume the states are equally probable than to make some other guess, e.g., that the probability of State One is .3 and the probability of State Two is .7?<sup>173</sup> Moreover, the equiprobability assumption makes the way one slices up the possible states of the world very important. Take disastrous global warming. There could be two states, disaster or nondisaster. But why not three states, e.g., disaster, near disaster, or nondisaster? Suddenly, the probability of disaster becomes .33 instead of the .5 that was assigned when there were two equiprobable states!

The alternative strategies, playing it safe and going for it, also have problems. Playing it safe under conditions of ignorance has a certain appeal. By choosing the action with best worst-case payoff—

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173. See *id.* at 1159.

call this the “maximin strategy”<sup>174</sup>—you can be sure that you will avoid the worst disaster. No global ecological catastrophes! But why is it rational to be so conservative? Why deprive yourself of economic benefits of fossil fuel consumption because of an unknown risk of an ecological catastrophe? Why not go for it? If you fail to choose the action with the best best-case outcome—call this the “maximax strategy”—you will never know how good it could have been. I will refrain from further rhetorical questioning, but I hope that my informal argument has conveyed the sense of the more rigorous debate in decision theory. Although the debate may not yet be finally settled, there simply doesn’t seem to be any generally applicable strategy for rational choice under conditions of ignorance.<sup>175</sup> The lack of a generally applicable strategy does not, however, mean that we are utterly lost when confronted with ignorance. We do make choices when we are truly in the dark and, in different situations, we may employ each of the strategies that is outlined above.

In the context of intergenerational ethics, the problem of decision making under conditions of ignorance is especially acute in the case of our obligations toward unborn future generations, because we have no reliable means of estimating the probabilities of events in the far future. Of course, we can guess or estimate probabilities, but we are unlikely to have any way of confirming the reliability of such estimates. Although we must decide, it is radically unclear what would count as a justification for our decisions.

### *B. Discount Rates and Utilitarian Theories*

Consider a second problem of intergenerational ethics. Economists and some utilitarians traditionally use a discount rate when comparing future values to present values. Discount rates are clearly rational in the context of financial decisions made by individuals, families, and firms. If you offer me the choice between a payment of \$100 today or \$100 in a year, I ought to choose \$100 today. We discussed some of the reasons for this preference in connection with the explication of utilitarianism above. One reason to prefer \$100 today

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174. We call this the maximin strategy because it maximizes the minimum payoff. *See id.* at 1155.

175. *See id.* at 1160.

is that I cannot be certain I will really get the \$100 in a year. In a year, I might be dead or you might be insolvent. Another reason concerns opportunity costs. If I receive \$100 today, I can invest it (in secure government bonds) and receive \$105 in a year.

When we consider intergenerational ethics, discount rates become important for another reason that is illustrated by the case of *economic development* without a discount rate. Suppose we are deciding whether to make an investment that will yield compound interest over a very long period of time. Let's explore the science-fiction hypothetical of an investment within the bonds of a very stable and secure intergalactic bank with its assets diversified over many hundreds of thousands of star systems. Suppose that we can invest \$1,000,000,000,000.00 of our current gross domestic product in a zero coupon bond that will pay 2% real interest per annum for a period of 1000 years, yielding an astonishing \$398,264,651,658,129,553,065.38 or almost four hundred quintillion inflation-adjusted dollars. Enough let's say, to create an endowment that would insure the material well-being of every human being in perpetuity: At a 2% real rate of return, it would yield a real return of \$7,965,293,033,162,591,061.31 for almost eight quintillion dollars per year. Suppose the alternative action is to consume the \$1,000,000,000,000.00 now. Even assuming a much lower marginal utility per dollar,<sup>176</sup> the perpetual future benefit would seem to dwarf the current cost. The current generation would appear to be required to make substantial sacrifices for the benefit of unborn future generations. Without a discount rate, the current generation might be said to be the moral slave of unborn future generations—assuming, of course, that we deploy a utilitarian approach to distributive justice.

Take another case, *persistent plutonium*. This time let's apply a discount rate. Let's say our discount rate is 5% per year. Recall that there is a .05 chance that one person will be killed by cancer in any given year and that we value a human life at slightly less than \$500,000.00, yielding an expected cost of \$25,000.00 per year for

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176. I have chosen the 1000-year period for dramatic effect, but this period is probably too long. Given the declining marginal utility of wealth and income, a more realistic hypothetical would choose a substantially shorter period.

500,000.00 years.<sup>177</sup> Without a discount rate, we would value the 25,000.00 lives at \$2,500,000,000.00. But with a discount rate of .05, we will value those same 25,000.00 lives at \$500,000.00, the monetary equivalent of one present life. In other words, the discount rate makes 25,000.00 future lives slightly less than equal in value to one current life.

As these two examples illustrate, discount rates make all the difference if we operate within a utilitarian framework. If we do not employ a discount rate, the current generation may be the moral slave of posterity. If we do employ a positive discount rate, then unborn future generations hardly matter at all. The longer the time period, the more acute is the dilemma.

### C. *The Problem of Possible Persons and Generations*

Consider one final conundrum, the problem of possible future persons. We have already seen that this problem poses difficulties for a variety of theoretical approaches. Part of the difficulty in analyzing this problem is that the notion of a possible future person is unclear. Let us try to get as clear as we can about this notion, and then restate the problem itself.

Our method for attacking the problem will be the employment of possible-world semantics to cash out the idea of a "possible future person." We begin with the notion of a possible world,<sup>178</sup>

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177. A present value of \$500,000 will yield a perpetual income stream of \$25,000 per year at an interest rate of 5%. ( $500,000 \times .05 = 25,000$ ). The present value of the 500,000 year income stream is slightly less than this because the \$500,000 would be amortized over the 500,000 year period.

178. See generally SAUL A. KRIPKE, *NAMING AND NECESSITY* (2d prtg. 1981) (discussing model theoretic study of modal logic "possible worlds" semantics); DAVID LEWIS, *ON THE PLURALITY OF WORLDS* (1986) (defending modal realism's view that our world is one of many, each with its own inhabitants). The idea of possible worlds was introduced by Leibniz. See GOTTFRIED WILHELM FREIHERR VON LEIBNIZ, *The Theodicy: Abridgement of the Argument Reduced to Syllogistic Form*, in LEIBNIZ: SELECTIONS 509, 509-11 (Philip P. Weiner ed., 1951). Leibniz used the idea of a possible world in answer to the argument against the existence of good from the problem of evil. See *id.* at 511. The argument is not proven, Leibniz maintained, until it is shown that the actual world is not the best of all possible worlds. See *id.* "World" here refers to the whole universe through time and not just the planet Earth.

understood as a possible state of the whole universe. If X is possible, we say that X occurs in some possible world. Complimentary to the concept of possibility is the concept of necessity. Let us say that Y is necessary if Y occurs in all possible worlds.

We add the notion of the "actual world," where actual is an indexical term that separates this world from all possible worlds. Thus, an actual person is a person who is now living or has lived in the actual world. A possible person is a person who does live in some possible world. A necessary person is a person who lives in all possible worlds.

Not all possible persons are implicated in debates about inter-generational justice. The possible persons we are concerned with are those who dwell in a subset of all possible worlds—the worlds that are possible future states of the actual world. This limitation is expressed in possible world semantics via what is called an "accessibility" relation.<sup>179</sup> Those possible worlds that share the history of the actual world up to now are called "historically accessible." Of course, it is logically possible that the future states of the actual world could be just about anything you can imagine; there is no logical contradiction in a possible world that shares the history of the world up until now but that is completely empty the very next moment. We should restrict the domain of possible worlds to those that share the basic laws of nature (physics, etc.) with the actual world; these worlds are called "nomologically accessible." The historically and nomologically accessible worlds, then, are those that share the history of the actual world up to now and that share our laws of nature. Thus, we are concerned with persons who are possible in the sense that they exist in some historically and nomologically accessible possible world. Finally, we are not concerned with historically and nomologically accessible possible worlds that cannot come into being given the limits on human choices. If there is nothing humans could do that would bring a possible future state of the world about, then the persons who dwell in that world are irrelevant to our choices. Let us call the worlds that are open to human choice, "practically accessible." A practically accessible world is, by definition, also nomologically and historically accessible.

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179. See LEWIS, *supra* note 178, at 7-8.

We immediately run into another problem. Every contingency of fact or choice involves a different possible world. As we move into the future, possibilities multiply at a bewildering rate. Just seconds into the future, there are billions and billions of practically accessible possible worlds, corresponding to every choice that every human being can make at every moment. Even the least significant decision (lighting a match or tossing one's head) dooms an infinite number of possible persons to nonactuality. It would seem that possible persons cannot have moral significance, because no action we can take avoids dooming them by the billions to nonactuality.<sup>180</sup> Let's give this problem a name: Call it the *possible persons problem*.

But every person is only a possible person as we move into the future. There is a possible world in which every particular person alive today dies in the near future, of a heart attack, an automobile accident, a nasty fall, a fight, or any one of a multitude of possible fatal events. That is, for each of us, there is a practically possible world in which we are not alive at some point in the not-so-distant future. Put another way, there are no practically necessary persons, i.e., persons who exist in every practically accessible possible world that is more than a few minutes or hours into the future. This problem would be particularly acute for preference-satisfaction utilitarianism, which requires a stable set of preferences yielding a utility function for all possible states of the world.

This last problem has a solution. We can begin with the actual persons, that is, the persons who are now present in the actual world.<sup>181</sup> Such actual persons will have counterparts in many practically accessible worlds.<sup>182</sup> We can count the practically accessible counterparts of all actual persons for moral purposes. Expected values do exactly this. The utility of a possible person is discounted by the probability that the possible person will become an actual person.

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180. In possible worlds semantics, every possible person exists in some possible world. No decision humans can make would affect the existence of possible persons. What is affected is their actuality.

181. This is the current generation or all persons now living.

182. Counterparts are tricky in some contexts, but since all practically accessible possible-worlds are historically accessible as well, we can define a counterpart as the historical continuation of the person.

Call this solution to the problem of possibility, the *actual counterparts solution*.

Return then to the problem of unborn future generations (UFGs). Individual members of UFGs are not actual persons. They don't exist, so they are not actual. They are practically possible persons, but there is no guarantee that any particular member of a UFG will come into being. There are no necessary members of a UFG; indeed, I would guess that there are no necessary UFGs.<sup>183</sup> Because there are no actual members of any UFG, the *actual counterparts solution to the possible persons problem* is not available. There are very grave difficulties with the notion that we have moral duties towards possible persons, and therefore grave difficulties with any notion of intergenerational ethics involving unborn future generations.

## VII. THE SYMPOSIUM

In this penultimate part, I will briefly introduce each contribution to the symposium. My hope is to situate each article with respect to the theories and problems that I have introduced.

### A. *An Evolutionary Ethics of Intergenerational Justice*

Theodore Seto's contribution is entitled *Intergenerational Decision Making: An Evolutionary Perspective*.<sup>184</sup> Professor Seto describes a problem of intergenerational ethics that he calls "The Pleistocene Dilemma,"<sup>185</sup> a version of the case of *economic development* set in the far past. In response to this dilemma, he introduces what he calls, "an evolutionary theory of motivation and normative obligation."<sup>186</sup> The motivational component of the theory begins with genetically triggered motives, such as thirst.<sup>187</sup> It then extends to learned behaviors, arguing that an evolutionary mechanism operates with respect to them as well.<sup>188</sup> Seto then argues that moral or

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183. This is so because it is probably within human capacity to destroy all human life.

184. Theodore P. Seto, *Intergenerational Decision-Making: An Evolutionary Perspective*, 35 LOY. L.A. L. REV. 235 (2001).

185. *Id.* at 236-42.

186. *Id.* at 242-43.

187. *See id.* at 245.

188. *See id.*

ethical behaviors can also be explained as a result of an evolutionary process.<sup>189</sup> The crucial step of his argument relies on research that demonstrates that in computer simulations of prisoner's dilemma choice situations, the most successful strategies reproduce at higher rates than unsuccessful strategies, the so-called tit-for-tat strategy is favored.<sup>190</sup> Tit-for-tat is based on the simple idea that I will cooperate in response to cooperation and retaliate in response to retaliation; tit-for-tat can thus be called a principle of reciprocity.<sup>191</sup> Seto claims that a variety of ethical and moral theories are structurally similar to tit-for-tat.<sup>192</sup> He then reaches the following conclusion, "good and evil exist objectively as part of the mathematics of our universe."<sup>193</sup> Finally, Seto makes a claim about the meaning of moral or ethical claims, "When we assert that a behavior *should* have normative status, we are necessarily asserting that such behavior is adaptive . . . ."<sup>194</sup> By adaptive behavior, Seto means behaviors that "will help the entities we care about survive and reproduce."<sup>195</sup> If we aim at survival and adaptation, the natural question is survival and adaptation of what? Seto's answer is the "We," a group that he defines as the group of persons who cooperate rather than defect; in other words, those who pursue the strategy of tit-for-tat will reliably cooperate with us if we cooperate with them.<sup>196</sup>

Let me try to restate Seto's moral theory as an injunction, which I shall call the *reciprocity principle*: Act so that you maximize the survival and reproduction of entities that follow the norm of reciprocity, cooperating in response to cooperation and retaliating in response to attack.<sup>197</sup> This group might be as small as one's clan or as large as all humanity or even all sentient or intelligent creatures.<sup>198</sup> Is this a plausible view? One difficulty with the theory is that it

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189. *See id.* at 248.

190. *See id.* at 248-50.

191. *See id.* at 249-51.

192. *See id.* at 250.

193. *Id.* at 252.

194. *Id.* at 255.

195. *Id.*

196. *See id.* at 252.

197. I am not sure whether Seto would endorse this precise formula, but he does not provide one of his own.

198. *See Seto, supra* note 184, at 253.



seems to make both cooperation and retaliation moral duties. Tit-for-tat requires that I retaliate against those who injure me; turning the other cheek is not adaptive in evolutionary simulations involving repeated prisoners' dilemma games.<sup>199</sup>

Another difficulty with the reciprocity principle is that it makes survival and reproduction the only moral goods.<sup>200</sup> Suppose that writing great music is neutral with respect to the survival and reproduction of cooperating entities; then Beethoven and Ellington did no good. Suppose that I devote my life to caring for persons with profound physical and mental disabilities that prevent them from ever producing, either genetically or culturally. Have I acted wrongly because I have invested resources in a barren activity? Of course, Seto can try to show that music or care for the disabled does, in fact, contribute to the survival and reproduction of those who cooperate, but this would miss the point. We praise great composers because of the beauty they produce, and not because they facilitate the reproduction and survival of cooperators. We praise those who care for the least fortunate because they act from the virtues of charity and beneficence and not because their behaviors are indirectly adaptive.

How does the reciprocity principle apply to intergenerational ethics? Seto himself notes that reciprocity cannot apply between generations; we cannot cooperate with future or past generations.<sup>201</sup> Future generations, however, have normative significance: "[W]hat matters—indeed, *all that matters*—is that we survive and reproduce into the indefinite future."<sup>202</sup> This entails, argues Seto, that "*the future always matters more than the present*,"<sup>203</sup> and hence no discount rate should be applied to the value of future survival and production. Future survival counts for everything, and current happiness counts for nothing if Seto's theory is true.<sup>204</sup>

Seto does not claim to have fully developed his theory or to have provided a satisfying rationale for it.<sup>205</sup> His aims are modest, as

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199. See *id.* at 250.

200. See *id.*

201. See *id.* at 258.

202. *Id.* at 259.

203. *Id.* at 261.

204. See *id.*

205. See *id.* at 255, 258.

will be my criticism. I would like to begin with an obvious objection, which Seto acknowledges. Seto would appear to be guilty of the "naturalistic fallacy," of moving from an "is" to an "ought" without a connecting premise.<sup>206</sup> Seto's response is that the failure of previous attempts to bridge the gap between facts and values does not entail that it is impossible to do so.<sup>207</sup> Seto himself does not provide an argument that connects facts and values. The facts he recounts are facts about evolutionary biology, the possible evolution of norms as cultural artifacts, and the dominance of tit-for-tat strategies in computer simulations of an evolutionary process involving strategies in repeated prisoners' dilemma games.<sup>208</sup> It is not clear, however, that Seto has really provided any reason to take these facts as the primary determinants of morality. Let's concede one important point to Seto: Any moral theory that would lead to the extinction of its adherents would be self-defeating in the long run. It is not clear that this should serve as a trumping factor in our moral deliberations. If the only way to avoid extinction were to become utterly depraved and cruel, then perhaps we ought to become extinct. But even if the avoidance of extinction is a constraint on moral theories, that does not entail that adaptivity should be the sole determinant of their content. "Survival of the fittest" isn't really true in the realm of evolutionary biology; the diversity of species illustrates that a variety of genotypes can coexist, some with billions of individual instantiations and some with only a few. As reasoning creatures, we can ask whether we ought to take adaptivity as our first and only value. It is open to us to choose an alternative.

### B. *A Defense of the Discount Rate*

In *Discounting in the Long Term*, Coleman Bazelon and Kent Smetters offer a sensitive and scholarly defense of a particular approach to the discount rate in intergenerational policy choices implicated in cases like *disastrous global warming* and *persistent plutonium*.<sup>209</sup> Their approach to the problem begins with the injunction to

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206. *Id.* at 251 n.62.

207. *See id.*

208. *See id.* at 242-51.

209. Coleman Bazelon & Kent Smetters, *Discounting in the Long Term*, 35 LOY. L.A. L. REV. 277 (2001).

convert future costs and benefits into certainty-equivalent values.<sup>210</sup> In other words, use expected values adjusted for risk preferences.<sup>211</sup> The discount rate that remains will then have two components. The first component is pure time preference and the second component is an adjustment for the likelihood that future generations will be wealthier than the current generation, making the utility of a dollar of their consumption lower than a utility of a dollar of our consumption.<sup>212</sup>

Each of the components of the Bazelon and Smetters' risk adjusted discount rate is problematic. Consider first, pure time preference. It is questionable whether pure time preferences ought to be considered from the point of view of either distributive justice or moral theory. Such preferences are most defensible if we assume they are applied to policies that affect a stable set of individuals;<sup>213</sup> let us make a simplifying assumption that the current generation is such set. Pure time preferences are not stable over time. At time  $T^1$ , I prefer consumption at or near  $T^1$  but at later time  $T^2$ , I prefer consumption at  $T^2$ .

When applied to unborn future generations, pure time preferences are even more problematic. What moral theory will produce the result that the welfare of future generations should have only that moral status that the preferences of the current generation give it? Bazelon and Smetters correctly observe that without a discount rate, the future might come to dominate the present within a utilitarian framework.<sup>214</sup> One reaction to this difficulty might be to arbitrarily adopt a discount rate, making the implications of utilitarianism more intuitive: This seems to be suspect as an arbitrary and ad hoc move. Another reaction might be to reject utilitarianism, adopting a view like Rawls's theory of the just savings rate.<sup>215</sup> Yet another reaction could be to bite the bullet, accepting the consequences of utilitarianism without a discount rate.

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210. *See id.* at 280.

211. *See id.*

212. *See id.* at 283.

213. *See id.* at 284.

214. *See id.* at 286.

215. *See* POLITICAL LIBERALISM, *supra* note 30, at 274.

The second rationale for a risk neutral discount rate is the likelihood that future generations are likely to be better off, and hence that the marginal utility of an inflation adjusted risk-neutral dollar of future consumption is likely to be lower than the marginal utility of a dollar of current consumption.<sup>216</sup> Bazelon and Smetters do an admirable job of discussing uncertainties about the assumption that future generations will be better off, and suggest that the discount rate should decline over time as a strategy for dealing with this uncertainty.<sup>217</sup> If one is to employ cost-benefit analysis, then some such strategy is a practical necessity; we need to make some assumption about the marginal utility of future consumption.

This leaves open the more fundamental question whether cost-benefit analysis is the appropriate strategy. Competing approaches to distributive justice, including some egalitarian and libertarian theories, avoid the problem of making apparently arbitrary assumptions about the marginal value of future consumption. Once we turn our attention away from the problem of making utilitarianism work and attend instead to the question whether utilitarianism is the best theory of distributive justice, it becomes apparent that the discount rate problem must surely count as a weakness of utilitarianism as a philosophical theory.

### C. *Towards a Theory of Intergenerational Distributive Justice*

Axel Gosseries's essay, *What Do We Owe the Next Generation(s)?*,<sup>218</sup> is a rich and sophisticated discussion of the problems of intergenerational justice. Gosseries focuses his discussion on the "next generation."<sup>219</sup> His discussion of this problem is careful and illuminating, defying easy summarization. Along the way, Gosseries provides an elegant discussion of the Lockean proviso (that first appropriation is limited by the requirement that we leave as much as a good for others),<sup>220</sup> and Rawls's approach.<sup>221</sup>

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216. See Bazelon & Smetters, *supra* note 209, at 284.

217. See *id.*

218. See Axel Gosseries, *What Do We Owe the Next Generation(s)?*, 35 LOY. L.A. L. REV. 293 (2001).

219. *Id.* at 296.

220. See *id.* at 304.

221. See *id.* at 311-17.

Rather than attempting a systematic or fundamental criticism of Gosseries's essay, I will engage one of his most interesting and provocative claims. Within the context of his discussion of Rawls's just savings principle, Gosseries advances the argument that under uncertain conditions,<sup>222</sup> maximin egalitarianism would prohibit savings for future generations. As he explains his argument:

The core idea is . . . the following: If there are "surpluses," they should be given in priority to the worst off in the current generation, instead of being transferred to the next generation. For, assuming that each generation applies maximin intra generationally, and sticking strictly to a zero rate of savings, the worst-off people in the next generation will still be better off than the worst-off among the current generation *would have been*, had we adopted a positive savings rate.<sup>223</sup>

Simplifying greatly and ignoring Gosseries's subtle discussions of the exceptions, the picture is as follows: Once we have achieved a just society, Rawls would require each generation to satisfy the just savings principle, which serves as a floor on the rate of intergenerational capital transfer; Rawls does not argue for a ceiling. Maximin egalitarians would prohibit any transfer above the floor.

Let me first note an assumption in this argument. The argument assumes that transfers above the floor would come at the expense of the worst-off group in the current generation, but this is not necessarily correct. Let us assume that we have a well-ordered society whose basic institutions satisfy the two principles of justice. Inequalities of wealth and income in such a society are just, because the inequalities work to the benefit of the worst-off members of society. Imagine that a given individual ( $I_i$ ) is making decisions about how to deploy her wealth. Justice as fairness permits her to make this decision in accord with her own comprehensive conception of the good, so long as she does not violate the liberties of other citizens. Notice that even the worst off persons in a just society are likely to have

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222. Gosseries qualifies this claim by saying that it applies once we have reached the steady-state stage in a theory of just savings between generations. See *id.* at 35-37. For Rawls, this stage is reached once we have achieved a just society. See *supra* note 38 and accompanying text.

223. Gosseries, *supra* note 218, at 325.

discretionary resources. We do not need to assume that  $I_1$  is one of the best off; she may be among the worst off.

Suppose that  $I_1$  decides to deploy her resources in some way that will increase the total transfer of resources to future generations above and beyond that required by the just savings principle. For example,  $I_1$  might choose to engage in basic research that will yield substantial payoffs in the next generation or to set up a charitable foundation that will plant trees that yield benefits to the next generation. In any given generation, there might be several ( $n$ ) such individuals ( $I_1, I_2, \dots, I_n$ ). The cumulative impact of their decisions might result in a basic structure that satisfies the just savings principle yielding a rate of savings that is higher than the principle requires.

Would the actions of  $I_1$  be unjust? Justice as fairness should answer this question in the negative.  $I_1$  has done everything that justice requires of her. Nothing more is required. The worst-off members of  $I_1$ 's generation have no just complaints, because the difference principle is satisfied. The advocate of a more egalitarian view is likely to make the following move: Doesn't justice  $I_1$  to transfer her disposable resources to someone who is worse off than she is? I shall argue that the answer to this question is "no," and I shall make very strong claim that answering this question "yes" is inconsistent with any theory of justice that regards all persons as free and equal.

Why isn't  $I_1$  obligated to give her disposable resources to aid those who are worst off? Consider two cases. First, let us assume that  $I_1$  is herself a member of the group that is worst off. You can see it coming! If we require her to give her resources to the other members of the worst-off group, she will become the worst off of all. If maximin egalitarianism requires her to do this, it is self-defeating. So  $I_1$  must have permission to use her resources in this way.

Second, let us assume that  $I_1$  is not a member of the worst-off group. Let us suppose that all persons who are not members of the worst off group are required to use their excess resources to aid those in the worst-off group. The same argument that we made with respect to  $I_1$  will apply even if she is not initially a member of the worst-off group. Once she gives away enough resources to qualify for worst-off status, she must be permitted to transfer resources to the next generation. In either case, whether she is initially among the worst-off or not, maximin egalitarianism itself requires that  $I_1$  be

permitted to transfer discretionary resources to the next generation, even if such transfers would exceed the level required by the just savings principle.

There is, however, an even more powerful and fundamental reason why such transfers must be permitted. Recall that justice as fairness considered principles of justice that reflect the idea that all citizens should be regarded as free and equal persons. This entails that each person may adopt her own comprehensive conception of the good. This entailment is reflected in the first principle of justice, the equal-liberty principle, which gives to each citizen liberty of conscience, freedom of speech, and rights to own private property. Suppose now that we add to the two principles of justice another principle, let us call it the *maximin egalitarian principle*. This principle requires each person who is not among the worst off to devote all her discretionary resources (wealth, income, and leisure time) to improving the status of those who are worst off.

What would be wrong with the *maximin egalitarian principle*? It is inconsistent with the conception of citizens as free and equal persons. One way to see this is to realize that the *maximin egalitarian principle* would require all but the worst off to adopt a particular life plan and partially comprehensive conception of the good. Each and every one of them would be required to devote a substantial share of their leisure time and discretionary resources to helping the worst off: painting, writing novels, and fishing would not be permitted. In other words, the *maximin egalitarian principle* would require one group to serve the ends of another. Those who were not worst off would be neither free nor equal. This point leads us to a final comment. The *maximin egalitarian principle* violates the basic idea that society is to be arranged in accord with the idea of reciprocity; a just basic structure is to be for the benefit of all. *Maximin egalitarianism* is the view that society should be arranged for the sole benefit of those who are worst off in terms of wealth and income. Once this feature of *maximin egalitarianism* is brought to the surface, its appeal vanishes.

#### VIII. TOWARD A NEW DISCOURSE OF INTERGENERATIONAL ETHICS

This symposium is one of many efforts to come to grips with the thorny problems of intergenerational justice and morality. The fine

and diverse contributions to the symposium have surely advanced our understanding of these problems. This introduction has barely scratched the surface of this topic, but if my contribution has any lessons to teach, I would suggest that they are the following. There is no single problem of intergenerational ethics; there are many problems. Because the problems of intergenerational ethics create grave difficulties for many particular theories of distributive justice or morality, attention to these problems may shake our beliefs in theories that we find compelling in the intragenerational context.

We can react to these conceptual tremors in many ways. We might fix our theories with ad hoc assumptions or exceptions. We might stick to our theories and swallow consequences for intergenerational ethics that fly in the face of common sense and our own considered convictions. We might simply ignore the problems of intergenerational ethics, by simply stipulating or assuming that our theory applies only to the intragenerational context. But if we do any of these things we shall have turned away from the pursuit of truth.

The problems of intergenerational justice are an invitation to a sea of discourse where our rudder is unsure and our course is uncertain. We are invited to abandon long-held beliefs and comforting dogmas. We are invited to rebuild our moral and political view of the world. If we take up this invitation, it is inevitable that the project of reconstruction can only proceed one plank at a time. We are on Neurath's boat: "We are like sailors who have to rebuild their ship on the open sea, without ever being able to dismantle it in dry-dock and reconstruct it from the best components."<sup>224</sup> Neurath's boat was launched by our distant ancestors. We can only hope that it may one day be brought to port by our children's children's children.

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224. OTTO NEURATH, *Protocol Statements*, in *PHILOSOPHICAL PAPERS 1913-1946*, at 92 (Robert S. Cohen & Marie Neurath eds. & trans., 1983).



